

**RESULTS OF THE 1997 CULTURAL RESOURCE
REEVALUATION PROJECT, FORT CARSON
MILITARY RESERVATION: EL PASO, FREMONT,
AND PUEBLO COUNTIES, COLORADO.**

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FOREWORD

The archeological investigations reported in this manuscript are an important part of the Fort Carson Cultural Resources Management Program. The goal of the program is to maintain the largest possible area for military training while protecting significant cultural and environmental resources. The current study is part of an integrated plan that takes a long-term systematic approach to meeting identification, evaluation, and resource protection requirements mandated by the National Historic Preservation Act. This project is a valuable addition to our knowledge of the prehistory and resources of central Colorado. Under a cooperative agreement, the National Park Service, Midwest Archeological Center, provides assistance in meeting Fort Carson's cultural resources goals.

The first federally funded survey on Fort Carson began in 1978. Since then Fort Carson has used a multidisciplinary approach combining archeological theory and historical methods with geological, geomorphological, botanical and statistical techniques and procedures in order to focus its efforts to locate, evaluate, and protect significant cultural resources. Professional studies and consultations with Native American tribes have resulted in the identification of National Register of Historic Places eligible sites and districts. All major prehistoric and historic cultural periods recognized on the Great Plains and Rocky Mountains are represented by the cultural resources on Fort Carson and the Pinon Canyon Maneuver Site. Sites of the Paleoindian, Archaic, and Ceramic stages are present as are sites from the Fur Trade era, 19th century Hispanic and Euroamerican settlements, early 20th century homesteading and ranching, and World War II and Cold War era military sites.

The Cultural Resources Management Program is in the Directorate of Environmental Compliance and Management. The directorate is tasked with maintaining Fort Carson's compliance with federal, state, and local environmental laws and mandates. Because decisions affecting one resource will impact other resources, the decisions we make today will affect the condition of Department of Army lands and resources for future training, research, and recreation. Mission requirements, training resources, wildlife, range, soil, hydrology, air, and recreation influence cultural resources management decisions. Integrating compliance and resource protection concerns into a comprehensive planning process reduces the time and effort expended on the compliance process, minimizes conflicts between resource protection and use, allows flexibility in project design, minimizes costs, and maximizes resource protection.

Federal laws protect the resources on Fort Carson and the Pinon Canyon Maneuver Site. Theft and vandalism are federal crimes. Protective measures ensure that Army activity does not inadvertently impact significant cultural sites. Fort Carson does not give out site location information nor are sites developed for public visitation. Similar resources are located in the Picketwire Canyonlands where public visits can be arranged through the U.S. Forest Service, Comanche National Grasslands in La Junta, Colorado.

Fort Carson endeavors to make results of the resource investigations available to the public and scientific communities. Technical reports on cultural resources are on file at the Fort Carson Curation Facility (Building 2420) and the Colorado State Historic Preservation Office and are available through the National Technical Information Service, Springfield VA. Selected reports have been distributed to public libraries in Colorado. Three video programs produced by Fort Carson are periodically shown on Public Broadcasting Stations. Non-technical reports on the prehistory, history and rock art of southeastern Colorado have been distributed to schools and libraries within the state. Fort Carson continues to demonstrate that military training and resource protection are mutually compatible goals.

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April 1999

POPULAR ABSTRACT

Archeological investigations suggest that the Fort Carson Military Reservation, located south of Colorado Springs, Colorado, has been inhabited for approximately 10,000 years. During the prehistoric period, which lasted until about 250 years ago, inhabitants subsisted on wild game and plants of the area, seasonally visiting the surrounding plains and mountains. About 2,000 years ago, some of these people began to construct more permanent dwellings made of stone. With the coming of the Europeans, their lifestyle changed drastically, and they were forced onto reservations during the 19th century. During the ensuing historic period, Anglo and Hispanic settlers farmed and ranched the area. In the early decades of the 20th century quarrying for sandstone and clay proved to be a profitable endeavor. In 1942, the U.S. Army acquired the land, which is now used as an army headquarters and training facility. The current archeological project entailed the reevaluation of 89 cultural resources which had been inventoried over the past 35 years. The purpose of the project was to establish their historic and archeological significance as required by the National Register of Historic Places. The criteria for determining significance are defined in the recent Cultural Resource Management Plan and the Multiple Properties Documentation prepared for the Fort Carson Military Reservation. This document outlines the types of sites which have been determined to be significant resources on Fort Carson.

TECHNICAL ABSTRACT

Eighty-nine cultural resources within the Fort Carson Military Reservation were reevaluated by Fort Lewis College during the summer and fall of 1997. These 89 cultural resources comprise historic and prehistoric archeological sites within three counties: El Paso, Fremont, and Pueblo. These counties cover most of six U.S.G.S. topographic quadrangle maps, and the sites are located within the numerous military training areas across the base. Many of the sites had never been fully recorded and were merely accounts of possible cultural resources collected by early researchers in the area. Attempts to locate the 89 cultural resources succeeded in accurately locating and identifying 76 (85%) of the total. Of the 13 (15%) cultural resources not relocated, one, 5EP77, is in an Impact Area that is permanently closed to civilians. The project resulted in 50 sites (56% of the resources evaluated) as having the potential to yield information significant to the prehistory of Fort Carson as identified in the Cultural Resource Management Plan for Fort Carson (Zier et al. 1997b). The remaining 38 sites (44%), which include 13 sites which we were unable to locate, are recommended as not eligible for nomination to the NRHP. It is recommended that cultural resources which have been recommended not significant receive no further archeological work.

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We owe a special debt of gratitude to Melissa Connor of the Midwest Archeological Center for her assistance in helping us set up this project and for acting as such a good liaison with Army personnel. A debt of gratitude is extended to the following persons from Range Control: Sergeant Hoffman, Sergeant Lundquist, Mr. Markel, and Mr. Cluck. A special thank-you is extended to Mr. Barry for keeping us out of harm's way. Marilyn Mueller (Jones Technologies, Inc.) provided us with the necessary information to complete the assigned tasks. Vincent Schiavitti reviewed the final draft and provided us with many useful comments. Finally, we thank Steve Chomko (DECAM) for his commitment to integrating educational needs and values into the management of archeological resources on Fort Carson.

TABLE OF CONTENTS

FOREWORD	i
POPULAR ABSTRACT	iii
TECHNICAL ABSTRACT	iii
ACKNOWLEDGMENTS	v
LIST OF TABLES	viii
LIST OF FIGURES	ix
CHAPTER 1 INTRODUCTION	1.1
CHAPTER 2 BACKGROUND TO THE STUDY: THE NATURAL AND CULTURAL ENVIRONMENTS OF THE FORT CARSON MILITARY RESERVATION	
Introduction	2.1
The Natural Environment	2.1
Climatic Variation	2.1
The Biotic Environment	2.1
Physiography	2.2
Cultural Overview	2.8
Fort Carson Prehistory	2.11
Fort Carson Ethnohistory and History	2.13
CHAPTER 3 REVIEW OF PREVIOUS ARCHEOLOGICAL WORK IN THE FORT CARSON MILITARY RESERVATION	3.1

CHAPTER 4	
RESEARCH DESIGN AND OBJECTIVES	4.1
CHAPTER 5	
FIELD AND LABORATORY METHODS	5.1
Introduction	5.1
Field Methods and Techniques	5.1
Archeological Site and Isolated Find	5.3
Safety	5.4
Collections	5.4
Recording	5.4
Site Forms and Site Maps	5.4
Datum	5.5
Photography	5.6
Shovel Test and Trowel Probe	5.6
Artifact Analysis	5.6
Laboratory Methods and Techniques	5.6
Flaked-Lithic Artifacts	5.6
Flaked-Lithic Tools	5.7
Prehistoric Ceramic Artifacts	5.7
Historic Artifacts	5.8
Faunal Remains	5.8
Cataloging	5.8
Database	5.8
CHAPTER 6	
RESULTS	6.1
Introduction	6.1
Site Reevaluations	6.14
El Paso County	6.14
Fremont County	6.23
Pueblo County	6.27
Newly Recorded Sites and Isolated Finds	6.54
CHAPTER 7	
CONCLUSIONS	
Introduction	7.1

Summary	7.1
Management Discussion	7.2
REFERENCES CITED	8.1
Appendix I (omitted due to sensitive site locational information)	
Appendix II (Artifact Analyses)	
Appendix III (omitted due to sensitive site locational information)	

LIST OF TABLES

Table 2.1	Generalized Bedrock Lithology, Fort Carson Military Reservation	2.3
Table 6.1	Sites Reevaluated by Fort Lewis College, 1997.	6.2
Table 6.2	Reevaluated Sites Recommended as Eligible for Nomination to the NRHP.	6.9
Table 6.3	Reevaluated Sites Recommended as Not Eligible for Nomination to the NRHP.	6.12
Table 6.4	Cultural Resources Eligibility Recommendations for 1997 Reevaluation Project	6.14
Table 7.1	Rock Art Sites Recommended for Reevaluation	7.3

LIST OF FIGURES

Figure 1.1	Location Map for Fort Carson Military Reservation, South-central Colorado	1.2
Figure 6.1	Rock Art Panel 2, 5PE58, With 1997 Revisions	6.31
Figure 6.2	Rock Art Panel 6, 5PE58, With 1997 Revisions	6.32
Figure 6.3	Rock Art Panel 7, 5PE58, With 1997 Revisions	6.33
Figure 6.4	Rock Art Panel 3, 5PE58, With 1997 Revisions	6.34
Figure 6.5	Rock Art Panel 5, 5PE58, With 1997 Revisions.	6.35
Figure 6.6	Rock Art Panel 8, 5PE58, With 1997 Revisions	6.36
Figure 6.7	Scaled Drawing of Rock Art Panel 9, 5PE58	6.37
Figure 6.8	Pan View and Profile, Hearth, 5PE1595	6.60
Figure 6.9	Site Map, 5PE2208	6.64
Figure 6.10	Scaled Drawing of Rock Art Panel, 5PE2208	6.65
Figure 6.11	Site Map, 5PE2209	6.66
Figure 6.12	Scaled Drawing of Rock Art Panel 1, 5PE2209	6.67
Figure 6.13	Scaled Drawing of Rock Art Panels 2, 3, and 4, 5PE2209....	6.68
Figure 6.14	Scaled Drawing of Rock Art Panels 5 and 6, 5PE2209	6.69
Figure 6.15	Site Map, 5PE2210	6.71

Figure 6.16 Site Map, 5PE2211	6.73
Figure II.1 Flaked-Lithic Artifacts	II.3
Figure II.2 Flaked-Lithic Artifacts.....	II.7
Figure II.3 Flaked-Lithic Artifacts.....	II.11
Figure II.4 Flaked-Lithic Artifacts	II.16
Figure II.5 Flaked-Lithic and Groundstone Artifacts	II.20
Figure II.6 Ceramic Artifacts.....	II.29
Figure II.7 Cross-Section of Selected Ceramic Artifacts.....	II.30
Figure II.8 Possible Bone Tool	II.45

Chapter 1

Introduction

Fort Lewis College (FLC) extended its cooperative agreement with the Midwest Archeological Center (MWAC) of the National Park Service to include a third field season in Fort Carson Military Reservation (FCMR). The 1997 field season agenda entailed the reevaluation of 89 cultural resources that included prehistoric sites, historic sites, and multiple-component sites. The 89 cultural resources are located on six U.S.G.S. 7.5' quadrangle maps and within three counties.

Fort Carson Military Reservation is in south-central Colorado (Figure 1.1) and encompasses 216.4 square miles (138,523 acres), which straddles El Paso, Pueblo, and Fremont Counties. Fort Carson Military Reservation was established in 1942, and is currently home to the 3rd Armored Cavalry Regiment, the 10th Special Forces Group, the 43rd Area Support Group, and the 3rd Brigade Combat. Under U.S. Army Regulation AR200-4, the installation is required to identify National Register-eligible properties and to allow consideration of potential impacts of federal actions on such properties. Because of the nature of current land use (e.g., mechanized maneuvers, infantry training, artillery training, flight training), there is the potential for damage to the cultural resources on the reservation. The purpose of the current project was to locate and reevaluate 89 cultural resources for eligibility and management reasons. These resources included historic and prehistoric archeological sites that had been identified over the last six decades of archeological research on Fort Carson. Several of these, particularly those along the Turkey Creek drainage in Pueblo County, were recorded prior to acquisition of this part of FCMR by the U.S. Army in 1965. The 89 resources had been determined through previous recording to be archeologically or historically significant; or they were unevaluated due to a lack of official investigations for recommendation to the National Register of Historic Places (NRHP).

Fieldwork commenced on August 14, 1997 and continued for three field sessions. Each eight-day (10-hour days) field session was separated by a six-day break. Fieldwork concluded on September 15, 1997. Dr. Philip Duke served as the Principal Investigator, Mona Charles as the Project Director, and Randy Nathan as the Assistant Director. Sean Larmore served as Assistant Crew Chief, and Ron Marvin from MWAC was responsible for operation of the Precision Lightweight GPS(PLGR. Other than these archeologists, project personnel consisted entirely of student archeologists from Fort Lewis College in Durango, Colorado. The public interest was well served by the participation of Fort Lewis College students in this project. Students gained valuable practical experience in all facets of

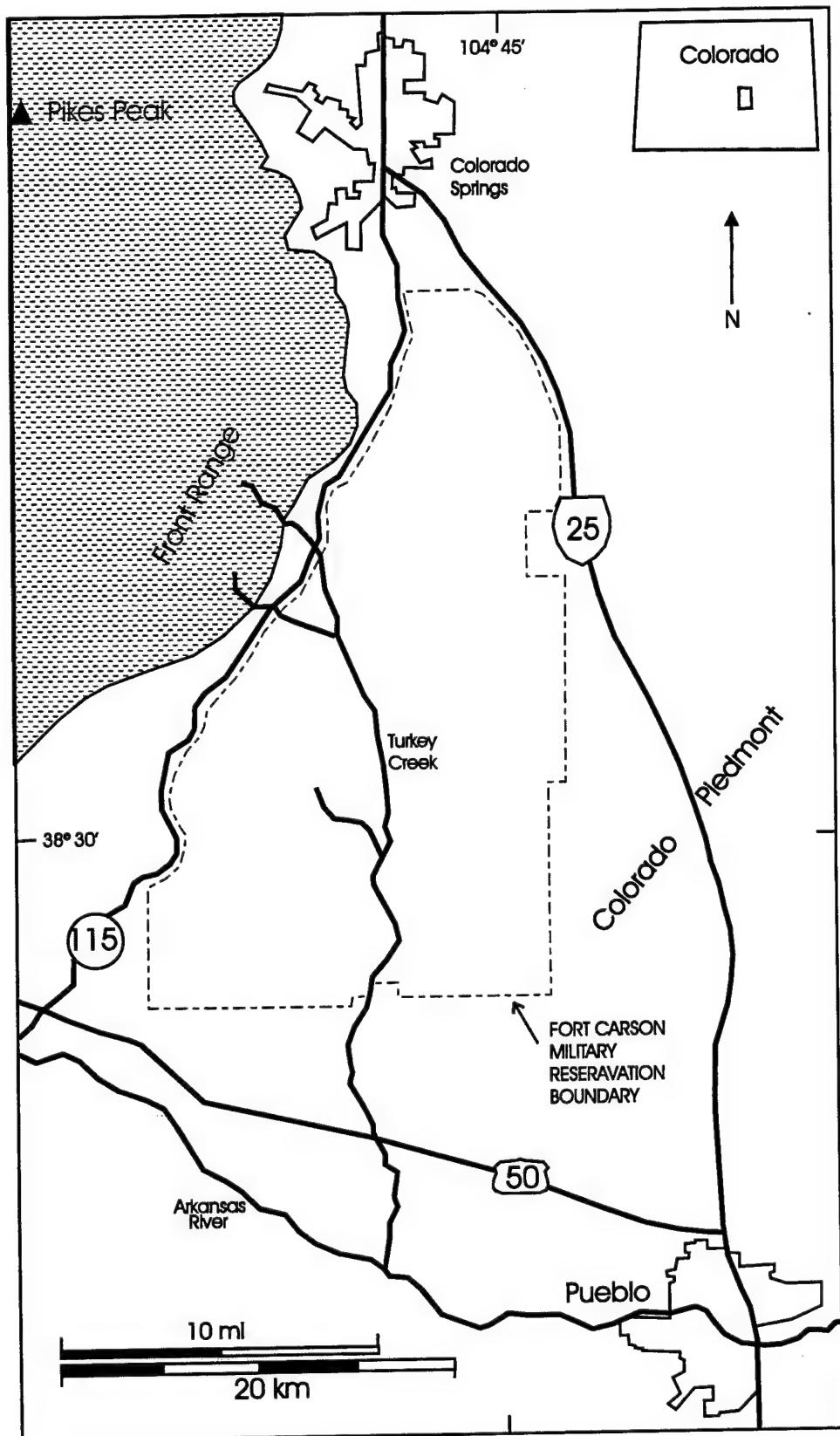


Figure 1.1. Location map for Fort Carson Military Reservation, south-central Colorado
Map adapted from Zier et al.(1996;Figure 1).

archeological research: from field inventory and the use of Global Positioning System (GPS) technology, to laboratory analysis and report preparation. This experience materially contributed to the educational mission of Fort Lewis College. The resulting additions to the archeological knowledge of this part of the state benefit the public in that they help preserve valuable cultural resources and increase awareness of the rich prehistoric and historic cultural legacy of the nation in general.

This document reports the findings of the 1997 reevaluation of the 89 cultural resources. Chapter 2 briefly synthesizes the natural and cultural settings of Fort Carson, so that the results of this project can be placed into an appropriate management and research perspective. Chapter 3 reviews previous archeological work conducted on Fort Carson, in particular those works that directly relate to this project. Chapter 4 outlines the goals and research design for this project. Field and laboratory methods used in this project are described in Chapter 5. Project results are presented in Chapter 6 while Chapter 7 concludes the report with a synthesis. Three appendices complete the report. Appendix I is the set of reevaluation forms, updated site forms, maps, and other PCMS/Fort Carson forms documented through this project. Appendix II is the flaked-lithic, ceramic, and faunal analyses; and Appendix III includes xerox copies of the quadrangle maps with the sites located.

CHAPTER 2

BACKGROUND TO THE STUDY: THE NATURAL AND CULTURAL ENVIRONMENT OF THE FORT CARSON MILITARY RESERVATION

INTRODUCTION

The purpose of this chapter is to present a brief overview of the natural and cultural environments of the Fort Carson Military Reservation. A more detailed overview has been completed for the FCMR and this overview is presented in Charles et al. (1997a; 1997b). Additionally, excellent syntheses are provided by Anderson (1990), Athearn (1985), Cassells (1983), Eighmy (1984), Guthrie et al. (1984), Mehls and Carter (1984), and Zier et al. (1987; 1997b), to which the reader is referred for more detailed and specific information.

THE NATURAL ENVIRONMENT

Climatic Variation

The climate of the reservation is classified as a mid-latitude, semi-arid continental climate with sharp seasonal variations. Summers are long and warm; winters are short and occasionally very cold. July has mean annual highs of 88° F (31C°). January is the coldest month, with a mean low of 15° F (-9° C). Precipitation is erratic and mainly falls as heavy thunderstorms during the summer (April to September) months (Department of Army 1980:3-1). The mean annual precipitation is approximately 12-15 in (30.5-38.0 cm).

The Biotic Environment

Three vegetation groups are found in the reservation. They are coniferous forest, scrub, and grassland (Dames and Moore 1978). The first is characterized by ponderosa pine, piñon, juniper, and Gambel's oak. This group is found primarily in the Booth Mountain and Sand Canyon areas. The second is represented mainly by piñon-juniper stands, sometimes with a Gambel's oak understory. Species such as blue grama and buffalo grasses are found mainly on the reservation's eastern edge.

Fauna is typical of the transitional nature of the reservation's location between plains and mountains. Historically, large mammals included bison, elk, both mule and white-tailed deer, antelope, bear, mountain lion, bobcat, and wolf. Smaller animals such as coyote, fox,

beaver, jackrabbit, cottontail, skunk, and an assortment of squirrels and rodents frequent the area. A variety of raptors are present, as well as rattlesnake and less dangerous reptiles (Zier et al. 1987:1-15-16). Perhaps the most important prehistoric economic resource was the bison (*Bison bison bison*). It provided aboriginal groups with food, and materials for clothing, utensils, glue, bindings, and tipi covers (McHugh 1958; Roe 1951).

Physiography

The Fort Carson Military Reservation is at the zone of contact between the Great Basin and the Southern Rocky Mountain physiographic provinces (Fenneman 1931). It is located in the southern part of the Colorado Piedmont of the Great Plains and adjacent to the foothills of the Front Range. This location gives it great elevational range, from approximately 5600 ft (1707 m) asl at the reservation's eastern boundary, to 6500 ft (1981 m) asl at its western boundary. Five distinct physiographic areas occur in Fort Carson: 1) the plains; 2) the low foothills; 3) the high foothill ridges; 4) the valley within the high foothill ridges; and 5) the high benches (Evanoff et al. 1996).

Geology and Geomorphology The geology and geomorphology of the Fort Carson Military Reservation are synthesized elsewhere (Charles 1997a; 1997b; Evanoff et al. 1996; Jepson et al. 1992; Kuehn 1998; Madole 1989; 1990; Van Ness et al. 1990; Zier and Kalasz 1991;), and the reader is referred to these individual reports for detail on the local geology and geomorphology.

Bedrock Geology Geologic bedrock of the Fort Carson Military Reservation is mostly composed of sedimentary rocks ranging in age from Pennsylvanian through Cretaceous (Table 2.1).

Structure The topography of the Fort Carson Military Reservation is largely the result of uplift, folding, and downwarping during the Late Cenozoic when block faulting and uplift were accompanied by volcanic activity over most of the Front Range. Sediments that had eroded from the rising Front Range were carried onto the Great Plains to the east and into intermontane basins to the west (Madole 1990:110). During the Miocene, accelerated uplift resulted in intensive canyon cutting in the mountains and erosion of the softer sediments (Ogallala Formation) from adjoining basins. The Colorado Piedmont, a physiographic entity, was shaped at this time. The Colorado Piedmont is topographically lower than the surrounding regions because the surface was stripped of the Miocene fluvial rocks that cover most of the adjoining Great Plains.

In Fort Carson, the sedimentary rocks were warped through folding and plunge to the southeast, where they merge with the plains some 20-30 km from the Front Range. Four anticlines (upwarps) separated by three synclines (downwarps) occur in the southwest half of Fort Carson. These include three named folds: The RedCreek/Turkey Creek Anticline;

Table 2.1. Generalized Bedrock Lithology, Fort Carson Military Reservation.

System	Series	Formation	Member	Physical Description
Quaternary	Holocene	Alluvium		Gray, poorly sorted stony sand and silt; forming flood plain
		Landslide debris		Earth flows, debris flows on steep slopes (Holocene and Pleistocene)
		Eolian sands		Fine to coarse windblown sand (Holocene and Pinedale glaciation)
		Louviers alluvium		Thin gravelly deposits on terraces 70' (21m) above streams on plains
		Stocum Alluvium		Weathered gravel on cut surface 100' (30m) above modern streams (Sangamon Interglaciation or Illinois)
		Verdos Alluvium		Weathered gravel on cut surface 200-250' (60-75m) above modern streams (Yarmouth Interglaciation or Kansas Glaciation)
		Rocky Flats Alluvium		Weathered gravel on cut surface 350' (105m) above modern stream (Aftonian interglaciation or Nebraskan glaciation)
		Nussbaum Alluvium		Weathered gravel on pediment 450' (96-108m) above stream (Nebraskan glaciation)
	Tertiary	Absent		
		Pierre Shale		Predominantly siltstone and claystone. Contains sandstone and sandy shale near top and bottom. Limestone masses forming conical buttes near middle, and fossiliferous concretions throughout. Thickness near 3900' (1170m)
Cretaceous		Niobrara	Smoky Hill Shale Member	Yellowish-gray, fossiliferous, calcareous shale and silty limestone
			Fort Hays Limestone Member	Beds of chalk 0.15 to 1 m thick separated by beds of dark-gray chalky shale 2.5-52 cm thick
		Carlile Shale	Juana Lopez Member	Calcrete
			Codell Sandstone Member	Upper part is thin lenses of dark limestone interbedded with a limey shale. Basal 0.75 to 1 m is a dense, near-black, fossiliferous limestone
		Upper Cretaceous	Blue Hill Shale Member	Dark fissile shale with large calcareous concretions
			Fairport Chalk Member	Tan to black, chalky, calcareous shale

System	Series	Formation	Member	Physical Description
Cretaceous	Lower Cretaceous	Greenhorn Limestone	Bridge Creek Limestone Member	Interbedded, fossiliferous limestone and limey shale
			Hartland Shale Member	Light gray limey shale with thin beds of Bentonite
			Lincoln Limestone Member	Limey shale with platy limestone beds near base and top
		Graneros Shale		Dark gray to black, fissile, noncalcareous shale, with two beds of dense, dark limestone
		Dakota Sandstone		Yellowish brown, crossbedded cliff-forming sandstone
	Purgatoire Formation	Kiowa Shale Member		Fossiliferous, marine, dark-gray, claystone, siltstone and sandstone
		Cheyenne Sandstone Member		Massive white to yellowish brown, crossbedded sandstone
	Upper Jurassic	Morrison Sandstone		Varicolored claystone, brown weathering sandstone and gray sandstone
		Ralston Creek Formation		Greenish gray claystone, gray limestone with jasper and agate
Triassic		Lykins		Red siltstone, claystone, and sandstone about 180' (55m) thick
Permian		Lyons Sandstone		Red sandstone forming two resistant ledges 700 - 800' (210-240m) thick
Pennsylvanian		Fountain Formation		Red conglomerate and sandstone
		Glen Eyrie Shale Member		Sandstone, sandy shale, and black fossiliferous shale

the County Line Syncline; and the Wild Horse Anticline (Evanoff et al. 1996:8-9). All these folds were compressed in an east and west direction, which produced elongated features with north to north-northwest axial lines. Booth Mountain and Timber Mountain are the topographic expressions of the Red Creek/Turkey Creek anticline. Turkey Creek and Booth Gulch mark the position of the synclines.

Hydrology The major drainages in the Fort Carson Reservation are, from north to south, Rock Creek, Little Fountain Creek, Turkey Creek, Red Creek, and Beaver Creek. The streams in Fort Carson drain either to the east into Fountain Creek or to the Arkansas River to the south. The unnamed mesa in the proposed ground-assault range forms part of an upper drainage divide between the Turkey Creek drainage, which flows to the south, and the drainages which flow east into Fountain Creek. This unnamed mesa is the last topographic relief before the flat Plains to the east. Turkey Creek follows the trend of the Turkey Creek syncline. The Turkey Creek valley was established during the Cenozoic. Ancestral Turkey Creek eroded the fluvial Tertiary rocks until its course was lowered onto the folded Mesozoic rocks. At this point, the stream course took the path of least resistance, eroding into the softer Upper Cretaceous shales and claystones. Eventually the channel was lowered onto resistant Dakota Sandstone. The superposition of the channel onto the eastward-dipping Dakota Sandstone resulted in the formation of Turkey Canyon (Madole 1990:112). Steep sandstone cliffs on both sides of Turkey Creek Canyon provide suitable locations for prehistoric shelters and smooth cliff faces for rock art.

Holocene History The Holocene geological history of the FCMR has not been fully documented. However, generalized Holocene histories are available for the Turkey Creek drainage (Madole 1989, 1990) and for the Red Creek drainage (Kuehn 1998).

Madole (1989, 1990) hypothesized a Holocene history for the Turkey Creek drainage which is based upon a paleoclimatic model of general atmospheric-circulation experiments and early Holocene paleoenvironmental data from other sites in the region. The alluvial stratigraphy of Turkey Creek was recorded by Madole (1989) for the purpose of providing a geoarcheological setting for the Recon John Shelter. Madole's interpretations are summarized below.

The eastern edge of Booth Mountain is bounded by Turkey Creek, which is superimposed over the eastern axis of the Turkey Creek/Red Creek syncline. Three lithostratigraphic units are identified in the Turkey Creek alluvium: a basal gravel unit (Unit 1); a sand unit that is comprised of two members (Unit 2); and a poorly-sorted, gravelly alluvium (Unit 3).

Although dates for Lithostratigraphic Unit 1 are not known, the unit was probably deposited during the early-to-mid Holocene. The maximum thickness of the unit is not known, but commonly it is as much as 4 m thick. The lower .5 m to 1 m consists of clast-supported coarse gravels. This basal gravels may be of Pleistocene age, although the

possibility exists that the gravels represents reworked Pleistocene deposits. The gravels are mostly pebble-to-cobble size, with local exposures of boulders ranging in diameter from 25 cm to 75 cm. Most of the gravel are Precambrian granitic and gneissic rock, and Dakota Sandstone. The intercalated sand and silty beds and lenses are interpreted as having been deposited in or near paleochannels. The basal gravels are conformably overlain by 2.5 m to 3 m of poorly sorted clayey and silty sand. The distinctive reddish hue and coarse columnar structure distinguishes the top of Unit 1 from the bottom of Unit 2. To a large degree, the reddish hue is the result of the parent materials; the sediments are derived mainly from Fountain Formation and Lykins Formation redbeds. A relatively thick but weakly developed soil marks the contact between Unit 1 and Unit 2. This soil consists of an A/C horizon in which the A horizon is cumulative. The A soil horizon varies in thickness considerably among locations. This variable thickness is a result of differential soil formation processes and degradation within the valley floor. In places the contact between the top of the soil and the overlying Unit 2 is undulating and occasionally marked by stone lines. These boundary features suggest a period of erosion after landscape stability and before the deposition of Unit 2. Radiocarbon assays on detrital charcoal from a section near the top of Unit 1 at the Recon John Shelter produced ages of 4050 ± 120 B.P. (Beta 24247 [Zier et al. 1996]) and 4400 ± 80 B.P. (Beta 24248[Zier et al. 1996]).

Lithostratigraphic Unit 2 unconformably overlies Unit 1 over most of the valley floor. Unit 2 consists of two subunits: a lower grayish brown to brown calcareous sand that grades downward to a basal sand. The lower portion of the unit is thicker and more extensive than the upper portion. Typically, the entire unit is less than 75 cm thick, but the stratum ranges from 25 cm along the valley margins to 1.6 m in paleochannels along the valley axis and in small alluvial fans and rills emanating from the valley sides. Well-stratified beds of sand and silty sand are interspersed throughout the unit.

Besides sediments in the lower portion of the unit being generally coarser and better sorted than those in the upper portion and exhibiting slight color differences, the two subunits are distinguished chiefly by the degree of pedogenesis. The upper, younger soil is characterized by an A/C profile. The A horizon in the lower soil, although weakly developed, is fairly thick (30-40 cm). The younger soil consists only of a thin A horizon (5-6 cm) and has little to no pedogenic structure. The younger soil is currently exposed at the surface along Turkey Creek. Contact between the two soils suggests a brief period of landscape stability followed by a period of aggradation with a return to landscape stability. Radiocarbon dates from the older part of Unit 2 at Recon John Shelter range in age from 2000 B.P. to 1000 B.P. (Zier 1989). The weak soil structure of the younger soil in Unit 2 suggests that a brief period of landscape stability has elapsed since deposition of the unit ceased. Madole (1990) estimates that deposition of the younger part of Unit 2 correlates with an episode of deposition that occurred between about 800 and 100 B.P. in drainage basins from southern Utah and western Oklahoma. This period of deposition is believed by Madole (1990:108) to have ceased in Turkey Creek between 150 and 100 years ago.

Most recently, an eleven-mile geomorphological and geoarcheological reconnaissance survey along Red Creek was conducted by the Center for Ecological Archaeology, Texas A&M (Kuehn 1998). The purpose of the study was fourfold: 1) identify, describe, and map the major sedimentary environments; 2) to place the sedimentary environments in chronostratigraphic order; 3) to correlate the sedimentary environments of Red Creek with those of other nearby studies (i.e., Madole for Turkey Creek and Butler et al. for the Red Creek Burial); and 4) to identify potential areas for buried archeological sites along the Red Creek drainage.

Red Creek is a braided stream west of Turkey Creek and near the western boundary of the FCMR. The deposits of Red Creek are divided into recent channel lag, terrace alluvium (T0, T1, and T2), alluvial fans, and colluvial aprons. The latter two differ in that the alluvial fans are generally larger fan-shaped deposits of alluvially and colluvially derived sediments while the colluvial aprons are formed specifically through slope wash.

The modern floodplain (T0) ranges from 0.5 to 1.0 m above the present channel. It has aggraded in the last 100 years, and no sites older than the historic period would be found in their original context in these deposits or in the recent channel lag. The T1 terrace is also of Late Holocene age. It is best preserved in the broader portions of the valley at elevations from 1.5 to 2 m above the channel. This terrace has developed in the last 100 to 150 years. The highest depositional terrace identified is a T2 terrace which is middle to late Holocene in age. This terrace fill is recognized by a series of buried soils displaying various measures of pedogenesis. A radiocarbon age collected from an exposed hearth suggests that the fill could be older than 3000 B.P. (Kuehn 1998:22). However, it should be noted that there is some evidence to suggest that the radiocarbon sample was collected from sediments which may in fact be associated with slope wash or alluvial fan deposits; therefore, this date may not present the timing of floodplain aggradation, but that of a later episode of slope wash deposition.

The modern floodplain in the Red Creek drainage is correlated to Madole's (1989:284-285) Lithostratigraphic Unit 3 in the Turkey Creek drainage (Kuehn 1998:16). Although Madole identified two distinct surfaces, an upper and a lower, only one surface was identified in Red Creek (Kuehn 1998:16). The T1 terrace in Red Creek may correspond temporally and vertically with the upper Unit 3 surface at Turkey Creek. It is suggested that it also corresponds regionally to episodes of stream aggradation reported from the Colorado Plateau, portions of the Basin and Range Province, and portions of the Southern High Plains and Northwestern Plains (Albanese and Wilson 1974; Kuehn 1993; Madole 1989). According to Kuehn (1998:17) the T2 terrace appears to correlate with the upper portion of Unit 2 at the Recon John Shelter in the Turkey Creek drainage (Madole 1989).

Both the T1 and T2 terraces appear stratigraphically and chronologically similar to two small remnant terraces identified along the East Fork of Red Creek by Butler et al. (1986). The lower terrace at the Red Creek Burial (Butler et al. 1986) rises 3 m above the

modern creek bed, and a charcoal sample collected from a hearth in the terrace fill produced a radiocarbon age of 1070 ± 70 B.P.. A second highly eroded terrace remnant rises 6.5 m above the modern channel bottom at this site (Butler et al. 1986). According to the authors (Butler 1985; Butler et al. 1986:8) the two terraces most likely correspond to two periods of aggradation defined by Hunt (1954) for southeastern Colorado: the Piney Creek alluvium (higher terrace); and the Post-Piney Creek alluvium (lower terrace).

The alluvial fan sediments that mantle Red Creek alluvial sequences suggest that fan deposition may have been more common during the late Holocene (Kuehn 1998:18). On the other hand colluvial/slope wash often form thin mantles over bedrock creating thick sediment accumulations with multiple buried soils which can extend down to the modern creek channel. These colluvial aprons and interbedded soils exhibit potentially complex horizontal/vertical relationships with the alluvial sequences (Kuehn 1998:18). Morphology of these sediments is complex, and it is likely that multiple episodes of slope wash deposition occurred during the Holocene.

The potential for archeological sites to be preserved along the Red Creek drainage varies with the age of the site and the geomorphic context. Sites dating from the Historic period can be found either on or buried within all sedimentary environments identified along Red Creek. Sites older than 3,000 years, however, are limited to the T2 terrace and to the alluvial fan and slope wash aprons. Due to the high-energy nature of the deposits within the T2 terrace, site preservation of these older sites may be better in the alluvial fans and slope wash aprons. It is possible, therefore, that Early and Middle Archaic sites are located in some deposits along Red Creek, but that sites dating to the Late Archaic and Ceramic periods possess a better potential than the earlier sites simply because of the preservation variability that characterizes many of the sedimentary environments of Red Creek (Kuehn 1998:22).

CULTURAL OVERVIEW

The location of Fort Carson in the foothills of the Rocky Mountains means that prehistoric populations undoubtedly had cultural ties to, and were influenced by, contemporary cultures in the adjacent plains and mountains. There is even evidence that at certain times during prehistory southeastern Colorado was influenced by cultures of the American Southwest.

Eighmy (1984:10) has divided the chronology of southern Colorado into four periods, and we apply these to the Fort Carson area: Paleo Indian, Archaic, Ceramic, and Protohistoric/Historic. We have excluded discussion of the pre-Paleo Indian period, as defined by Krieger (1964), because of its absence thus far in this part of Colorado.

Paleo Indian period The Paleo Indian period, which dates from approximately 12,000 B.P. to 7500 B.P., is a well-documented phenomenon in the Colorado Plains, this area producing

some of the most significant finds of that period. The period straddles the transition from terminal Pleistocene to early Holocene environments with an accompanying change in fauna and flora. It is typified by nomadic hunters and gatherers who concentrated on the killing of large fauna, such as mammoth and now-extinct forms of bison. The Paleo Indian period is divided into the Clovis (11,500-11,000 B.P.), the Folsom (11,000-10,200 B.P.), and the Plano (10,200-7500 B.P.) Traditions. Although both Clovis and Folsom Traditions are identified by distinctive fluted points, the processes of transition between the two are unclear, and Frison (1978) has proposed a transitional Goshen Complex. The Plano Tradition is characterized by a proliferation of point types, which may reflect increased territoriality and technological specialization as greater resource stability preempted the need for long-distance interaction networks (Hayden 1982:119).

The presence of humans in southern Colorado and surrounding areas during the Paleo Indian period is recorded primarily by surface finds (there are two Folsom finds on the Chaquaqua Plateau [Campbell 1976], for example). However, this area is close to the Folsom type-site, located just southeast of Raton, New Mexico. The bison kill-site of Olsen-Chubbuck (Wheat 1972) is also relatively close, and it is likely that more Paleo Indian sites will be found in the future. Within 200 miles of Fort Carson are some better known Paleo Indian sites, such as Cattleguard, Lindenmeier, Olsen-Chubbuck, and Jurgens.

Archaic period The Archaic period begins about 7500 B.P. in southern Colorado and, as a whole, sites attributed to the Archaic period are well represented. It is characterized by a shift to a wide subsistence spectrum of hunting and gathering; an increase in the use of groundstone tools used in plant preparation; and at the end of the period at least, greater sedentism, which perhaps is a precursor to a dependence on cultivated plants.

Early Archaic period (7500-5000 B.P.) sites are rare in southern Colorado (Eighmy 1984:68). Indeed it is possible that during this period, which coincides with the Altithermal warming episode, the Plains were abandoned or minimally occupied by humans (Benedict and Olson 1978; Buchner 1979; Reeves 1973). The Middle Archaic period (5000-3000 B.P.) is well represented by both radiocarbon and typologically dated components in southern Colorado (Eighmy 1984). Point types bear a resemblance to Southern Plains and Southwest types (including the Picosa Culture). During this period, stone circles (tipi rings) first appear, along with an increase in the size and complexity of communal bison-hunting techniques (Forbis 1978; Reeves 1978). Archeological evidence for the Late Archaic Period (3000-1800 B.P.) in southern Colorado is provided by a series of sites - including stratified rock shelters - such as Carrizo, McEndree Ranch, Medina, Recon John (which is located on the Fort Carson Military Reservation and described in more detail below), and Trinchera. The last site provided not only stratigraphic sequences, but also organic material and bones that indicate an emphasis on small-game hunting (Wood-Simpson 1976:177). Archaic sites in southern Colorado are sufficiently numerous to allow for the reconstruction of settlement systems: for example, Alexander et al.'s (1982) study of the archeology of the Fort Carson Military

Reservation, Lutz and Hunt's (1979) of the Purgatoire and Apishapa highlands, and Eddy's et al.'s (1982, 1984) of the John Martin Reservoir.

Ceramic period The Ceramic period, according to Eighmy (1984), is not fully *formative*, because it is still based primarily on hunting and gathering, and it lacks established village life. Eighmy divides the Ceramic into Early and Middle subperiods. Gunnerson (1987:97) and Zier et al. (1987:2-13) have added a Late subperiod, which corresponds to Eighmy's Protohistoric period. The major technological innovations of the Ceramic Period are, of course, ceramics (albeit in small numbers), the bow and arrow, stone architecture and the appearance in small quantities of cultivated plants, in particular maize.

The Early Ceramic period dates between A.D. 200-1000 and it corresponds to what has been termed the Plains Woodland Tradition (cf. Eighmy 1984). We prefer the former designation in view of the rather oxymoronic nature of the latter term. Cultures of this period appear to represent an indigenous outgrowth from Archaic systems. After about A.D. 450, there appear to be differences between sites found along the Arkansas and Platte River systems, respectively. Sites along the Arkansas River system are assigned to the Graneros Focus (Withers 1954), which is characterized by cord-marked pottery, corner-notched projectile points that are later replaced by side-notched forms, and slab-constructed circular dwellings. The Parker Focus, which might be merely a geographical variant of the Graneros Focus (Butler 1986:213) or—vice-versa—is heaviest in the Denver Basin and South Platte River Valley region, and may extend to the San Luis Valley. According to Baugh (1994:269), the most recent Early Ceramic component at the Recon John Shelter may represent the most southerly and westerly extension of the traditional Plains Woodland Complex as exemplified by the Valley and Keith Foci of the Central Plains.

The Middle Ceramic period (A.D. 1000-1500) of eastern Colorado contains variants of the Plains Village Tradition, such as the Upper Republican Complex, the Upper Purgatoire Complex, the Apishapa Phase, and the Upper Canark Variant. The Upper Republican Complex (A.D. 1000-1450) is characterized as a sedentary culture based on hunting, gathering, and horticulture (Gunnerson 1987:68-71). It is located primarily in southern Nebraska and northern Kansas. Strong (1935) associates the complex with the prehistoric Pawnee. The Upper Purgatoire Complex (Dick 1963) is dated between approximately A.D. 1000-1225 (Cassells 1983:177; Wood and Bair 1980:15), and is divided into three phases: Initial Sopris; Early Sopris; and Late Sopris (Cassells 1983:177). Subsistence during this time was a mixture of foraging and farming, and its architectural and ceramic styles reflect both Plains and Southwestern influences. Indeed, it has recently been suggested that Sopris Phase sites represent an archeological frontier of the northern Southwest (Mitchell 1996). Alternatively, Turner (1980) has suggested that Sopris Phase populations may be Athabascan, based on a fairly high frequency (23%) of triple-rooted molars in a Sopris Phase skeletal assemblage from the Trinidad Lake area.

The Apishapa Phase was first recognized by Renaud (1931a) and later defined by Withers (1954). It may have antecedents in the Graneros Focus (Baugh 1994:269). It is characterized by villages—of varying size—composed of upright slab-stone houses, often in seemingly defensible locations. The proximity of these sites to arable land (Campbell 1969:418-419) suggests some level of commitment to horticulture. Ireland (1968) proposed that at the Snake Blakeslee site (Gunnerson 1989) occupants subsisted primarily on corn and bison. Campbell (1969), seeing supposed similarities between Apishapa sites and contemporary materials in the Texas and Oklahoma Panhandles, placed the phase into the Panhandle Aspect. Lintz (1978, 1984, 1986) in a reworking of this material, proposed the Upper Canark Variant (A.D. 1200-1500), which contains the Apishapa Phase and the Antelope Creek Phase of northeastern New Mexico and the Texas and Oklahoma Panhandles. Baugh (1994:282) has further added to the Upper Canark Variant the Zimms Complex of western Oklahoma and the eastern Texas Panhandle, and the Burial City Complex of the northeastern part of the Texas Panhandle.

The Late Ceramic or Protohistoric period (A.D. 1500-1800) is characterized by many ethnographically recognized tribes who were either hunters and gatherers, or part-time horticulturalists. Aboriginal inhabitants during this period had access to European goods, but were not in regular face-to-face contact with Europeans. A major Colorado Plains group was the Athabascans (specifically the Apache), who migrated south as part of the large Athabascan movement that began in Alaska sometime in the first millennium (Duke and Wilson 1994; Vickers 1994). They grew corn, beans, and squash, hunted extensively, and traded with Puebloan groups in northern New Mexico. These groups are represented archeologically by the Dismal River Aspect (A.D. 1675-1725), which is found throughout large portions of the western plains including eastern Colorado (Gunnerson 1987:102-107).

Archeological evidence suggests that the Apache entered southern Colorado sometime after A.D. 1300 (Campbell 1969:496). Excavations at a series of stone-circle sites associated with the Eastern Apache, located on the Carrizo Ranches on the Chamaqua Plateau, were radiocarbon dated to the 14th century (Kingsbury and Gabel 1983). These sites also contained Pueblo IV pottery indicative of interaction with groups to the south. Other tribes of note during this period were the Comanche, Arapaho, and Cheyenne. A more detailed review of the ethnohistoric evidence is found in the succeeding section on Fort Carson ethnohistory.

Fort Carson Prehistory

Generally, sites become more common at Fort Carson as they get more recent, reflecting not only increased human populations, but more likely the better preservation potential of more recent archeological resources (Zier et al. 1987:2-44). The numerous surveys conducted on the reservation in the last ten years suggest that the majority of datable prehistoric components fall between approximately 1500 B.C. and A.D. 1500, while most

datable historic structures date to the last few decades of the 19th century and the first half of the twentieth (e.g., Van Ness et al. 1990; Jepson et al. 1992).

Prior to the Fort Lewis inventories, which began in 1995, only two pieces of evidence on the Fort Carson Military Reservation belonged to the Paleo Indian period: an isolated projectile point dated to approximately 8000 B.P. (Zier et al. 1987), and the base of an Eden projectile point collected from a multi-component site (Alexander et al. 1982).

Although definite Archaic sites are rare on the reservation, most flaked-lithic sites are undated, and so many of these could be Archaic in age. Two important multi-component sites on the reservation are the Recon John Shelter (Zier and Kalasz 1991) and Gooseberry Shelter (Kalasz et al. 1993). Limited testing in Gooseberry Shelter produced the only firmly dated Early Archaic period site on the FCMR (Zier et al. 1997:5). Testing and excavation at the Recon John Shelter identified three radiocarbon-dated components: Middle Archaic (4400-3700 B.P.); Late Archaic (2000-1800 B.P.); and Early Ceramic (1800-1000 B.P.). Evidence for a hunting-and-gathering economy, with some degree of maize horticulture, was recovered from this site.

Early Ceramic period sites are common at Fort Carson (Zier et al. 1987:2-9), although Zier cautions that some of these may be misidentified Middle Ceramic sites, because both periods have cord-marked sherds. There are many Middle Ceramic sites in the reservation, especially in its southern part. Apishapa Phase lifeways have been elucidated through long-term investigations at the Avery Ranch Site, the most recent of which were conducted by Centennial Archaeology in 1985 and 1986 (Zier et al. 1988, 1990). The Avery Ranch Site, a multi-functional camp occupied in a single episode during the fall, dates to the thirteenth century. Zier identified four major activity areas, three of which contained architectural remains. Large quantities of butchered bison bone and charred seeds, especially *Chenopodium* (goosefoot), indicate a hunting-and-gathering economy, although a small amount of maize was also recovered. In general, Apishapa lifeways seem to have been organized around the efficient gathering and storing of wild plants, the hunting of deer, antelope and some bison, and the farming—albeit limited—of at least five different varieties of maize (Baugh 1994:278).

Additionally, in keeping with the generally processual nature of archeological research conducted during the 1970s and 1980s, the Fort Carson prehistoric data base has been subjected to a variety of settlement modeling (Zier et al. 1987:2-45-51). Zier et al. (1987:2-47-51) reject inductive-based models in favor of deductively generated predictive models that allow for a better control of sample universes. Despite the persuasiveness with which Zier makes his case, inductive models at least avoid the problem of a priori assuming which environmental variables were important in the selection of specific site locations (cf. Butzer 1982; Weimer 1995).

Predictive models for the Turkey Creek, Booth Mountain, and Red Creek areas were generated by Zier et al. (1987:2-86), with Booth Mountain providing the most surprising

results in terms of the frequency and distribution of archeological sites in an area assumed to be too rugged to have supported a large prehistoric population. It was determined that the highest site probability lay on the southern and western slopes of the mountain, with sites located along the drainages that flow into Booth Gulch rather than into Turkey Creek. It is possible that the very inaccessibility of Booth Mountain made it an attractive habitation. Very few sites were found on the east half of the mountain excepting sites with rock art which are more common on the Turkey Creek side.

The subsistence and settlement model for Fort Carson, and on which the predictive modeling is based, supposes that during the prehistoric period the Fort Carson area was part of a human migratory pattern that ranged from the high mountains to the open plains. A variety of animals and plants, of which piñon nuts are considered of fundamental importance, were used (Zier et al. 1987:2-59). In keeping with studies elsewhere (e.g. Duke 1978; Quigg 1974) Zier et al. (1987:2-52) have proposed that large, winter base camps were established in the more sheltered foothills, along the Arkansas River and its permanent tributaries. Smaller camps established in the spring and used throughout the rest of the year were located along different routes radiating from the winter base camps, in response to the seasonal availability of particular resources. In this regard, it is important to acknowledge that such annual subsistence rounds may have been far-ranging. Rockafellow's (1881) history of Fremont County, for instance, described historic Utes as summering in the higher elevations of the Rockies, before coming down to winter base camps in the Arkansas River Valley, near Cañon City. Thus, prehistoric sites found in the Monarch Pass area (Hutchinson 1990) may well have relevance to explicating subsistence patterns in the Fort Carson area, especially given that the Arkansas River Valley was the primary communication corridor to the Monarch Pass area during the historic period.

Fort Carson Ethnohistory and History

From the initial period of European contact, which began in the middle of the 16th century, Plains Indians underwent profound cultural, social, and economic changes, descriptions of which need not be replicated here. Initial contact was at first indirect, in the form of long-distance trade (beaver and muskrat pelts in exchange for numerous European goods), but this was replaced by face-to-face contact and exchange. Beaver trapping (and later bison-hide tanning) brought the Plains into the world economic system (cf. Lewis [1942] for an early surgical analysis of the economic and social effects of this on Northern Plains groups, particularly the Blackfoot). Acquisition of the horse and gun helped individual Indian groups to resist European expansion, but often this was done by taking over the territories of Indian groups who were not so well equipped. The horse also caused major economic and social changes to Indian tribes, and these are well documented by Roe (1955). In general, the period of European contact, then, can be seen as one in which Native Americans were forced to cope as best they could with the European economic nexus into which they had been so unwillingly drawn.

It is difficult to determine precisely which Indian tribes used the Fort Carson area because of its location at two major physiological zones (Plains and Mountains) in three culture areas (Plains, Mountains, and Southwest), and its proximity to important passes and trails used by many different groups. However, based on general knowledge of the ethnohistoric period in southern Colorado, and also specific references to places like Manitou Springs, some degree of confidence can be placed in stating that the area was utilized by at least four tribes: the Apache; Comanche; Arapaho; and Ute (Zier et al. 1987:2-166-171).

Southern Plains tribes first contacted Spanish groups beginning in 1541, when Coronado led an expedition across parts of New Mexico and Kansas (Hammond and Rey 1940). Coronado's description of the groups he met provides a good description of peoples who were still essentially "prehistoric." Coronado encountered two groups called "Querechos" and "Teyas", although there is dispute as to whether both were Apache, or Apache and Caddoan groups respectively (cf. Weber 1990:XVIII-5-6). During the 16th century, more Spanish expeditions were sent throughout what was to become northern New Mexico and adjacent regions to extend Spanish sovereignty and to convert the Indians to Christianity. Of particular interest is the 1593 expedition of Francisco de Bonilla and Antonio de Humana. Although their exact route is not clear, it is possible that they traveled through the Fort Carson area (Zier et al. 1987:2-94).

Beginning in the late 17th century, the Apache, mounted and heavily armed, became a dominant force on the Southern Plains, raiding for both horses and slaves that were then traded to the Spanish (Weber 1990:XVII-7). Despite the unstable relations between Apache and Pueblo groups it was, nevertheless, the former to whom the latter fled after a series of revolts (the biggest revolt started in 1680 and lasted for 12 years).

In the early part of the 17th century, the Taos and Jemez Pueblos revolted against Spanish rule, and established a new settlement called El Cartelejo in western Kansas, which was under the control of the Apaches. However, It is unclear whether El Cartelejo was a specific pueblo or a region (cf. Forbes 1960; Schroeder 1974). By the 1660s the Spanish had moved the fleeing Puebloans back to their original settlements (Forbes 1960:137-139), although the area continued to act as a refugium for Puebloan and Apache groups trying to escape Spanish domination. Throughout the 18th century, the Apaches lost both power and territory—as the Comanche expanded; as eastern groups like the Kansa, Oto, Iowa, Ponca, and Omaha moved west; and as the area became a geopolitical arena contested by both France and Spain (Schlesier 1972).

The Comanche, together with the Ute, began to move into southern Colorado and adjacent to Kansas at the beginning of the 18th century (Weber 1990:XVII-13). Notwithstanding their defeat by de Anza in 1779 near modern-day Pueblo (Athearn 1985:18), the Comanche continued to expand their hegemony throughout the southern Colorado plains and areas to the south and east during the 18th century. The Utes raided with the Comanche until the middle of the 18th century, when the Comanche turned on them. The Utes were

originally mountain dwellers who made incursions into the Plains through many mountain passes (Hyde 1976:54-57; papers in Nickens 1988).

Ulibarri, who in 1706 brought back dissident Pueblo Indians from refuges across the Arkansas River, reported that the Utes and Comanches were raiding the Apache between present-day Pueblo and Trinidad, although they had not yet succeeded in driving them out completely (Hyde 1976:64). A later Spanish expedition in 1719 led by Governor Valverde found Apache still occupying southeastern Colorado (Schroeder 1974). Valverde's professed objective was to prevent Ute and Comanche raids on the Apache, although the leisurely nature of the expedition suggests that he had no urgency in accomplishing this (Hyde 1976:67-70). At least a secondary objective of the expedition was to show the Spanish flag in response to increasing French incursions into Spanish territory (Athearn 1985:14-16). These Spanish incursions increased until the outbreak of the French Indian War of 1754 (Athearn 1985:17). During the latter part of the 18th century, increasing Arapaho and Cheyenne incursions into the western Plains began to shunt the Comanche southward (Hyde 1976), and in 1786 the Spanish made a peace treaty with both the Comanche and the Ute (Athearn 1985:18).

During the 18th and early part of the 19th centuries, southern Colorado was infiltrated by comancheros and ciboleros, Hispanic and Pueblo Indian traders, and buffalo hunters (Baugh 1994; Weber 1990:XVII-15). The comanchero trade was based on well-established prehistoric trade patterns between Pueblo farmers and Plains bison hunters (cf. Spielmann 1991). Initially involving native corn and bison products, by the beginning of the 18th century the trade system incorporated Spanish goods, including horses and guns, as well as slaves. Trade fairs, such as the one at Taos, became an important component of the New Mexico economy (Carrillo 1990:XVIII-8). This changed, however, under American rule, since the comancheros were now considered thieves and villains (Carrillo 1990:XVIII-9).

Cibolero hunting comprised huge bison-hunting expeditions from New Mexico into the adjacent plains to take back bison products to their home settlements. These expeditions climaxed in the early 19th century. Increasingly, Anglo traders were attracted to southern Colorado and northern New Mexico to trade with both Indians and Hispanic settlements (Weber 1990:XVII-18-19).

Up to 1821, the ethnohistoric period of southern Colorado, as for adjacent areas, was characterized by processes that led both to the demise of aboriginal groups as independent entities and to increasing control over these areas by Spanish residents in areas to the south. However, southern Colorado was never successfully colonized by the Spanish (Carrillo 1990:XVIII-7), and the area was important to the Spanish primarily for the resources that it offered. After 1821, what Carrillo (1990:XVIII-1) calls the second period of historical culture change in the area was initiated. Mexican independence intensified trading opportunities between southern Colorado and Hispanic settlements to the south. This second

period lasted until the Mexican War of 1846-48, which effectively ended Mexican domination of the area.

The earliest American interest in the Fort Carson area resulted from attempts to explore beyond their recognized territorial boundaries because of the Louisiana Purchase of 1803, which put newly acquired American territory immediately adjacent to long-held Spanish lands (Athearn 1985:25). In 1806, Zebulon Pike led an official U.S. expedition up the Arkansas River into what would become Colorado. Pike traveled up the Arkansas as far as South Park and then returned to journey to Santa Fe as a "prisoner" of Spanish troops. Pike's foray was followed by a wave of fur trappers and then by more scientific and military expeditions (Zier et al. 1987:2-100), such as the Long (1820), Dodge (1835), and Fremont (1843-44) expeditions, all of which went through or very near to Fort Carson. The fur trade, in particular, which began with French traders about one hundred years earlier, was responsible for a system of trails linking the area to the Spanish settlements to the south. Most important, Bent's Fort was founded in 1829, at the mouth of either the Huerfano River or Fountain Creek (Zier et al. 1987:2-104). This fort dominated regional trading for the next twenty years. There was little that the waning Spanish power could do to oppose increasing American incursions into their lands (Athearn 1985:27). Finally, in 1822, the Republic of Mexico declared its independence from Spain, and the New Mexican governor, Facundo Melgares, immediately opened the province to traders of all nationalities (Athearn 1985:27).

The "American period" officially began in 1848 with the annexation of Mexican lands by the U.S. under the terms of the Treaty of Guadalupe-Hidalgo (Athearn 1985:31; Carrillo 1990:XVIII-14). Manifest Destiny and the spirit of western entrepreneurship swept the study area. In 1851, the U.S. government decided to allocate specific tribal territories to the individual groups (Weber 1990:XVII-19-20), and in 1867 the government signed a treaty with many southern Plains tribes. This led ultimately to the Reservation period and the removal of tribes from their homelands. The Comanche, for example, were placed on a reservation in western Oklahoma (Wallace and Hoebel 1952). The land now identified as Fort Carson became part of the newly defined Territory of Colorado, enacted by Congress in 1861 (Athearn 1985:64).

Gold mining played an important role in the European development of the Fort Carson area, particularly after the 1848 finds in California, which encouraged miners to search in various places throughout Colorado. Both Cañon City and Pueblo served as supply centers for miners prospecting the Leadville lodes; but after 1863, the gold deposits there began to play out, and the two towns lost much of their importance (Zier et al. 1987:2-111). A silver rush in 1878 in the Wet Mountain Valley just outside Cañon City temporarily revived hopes of renewed mining wealth (Athearn 1985:120). A second gold strike in the Cripple Creek area in 1890 temporarily revitalized the industry, which led to renewed prospecting in the Fort Carson area, as well.

After the Civil War, population increased as the mining and agricultural potential of Colorado was realized, and as a result, various railroads were constructed throughout southern Colorado (Athearn 1985:89-110; Carrillo 1990:XVIII-21). Many local lines were built to transport coal mined from deposits east of Cañon City, and the last 15 years of the nineteenth century saw Florence's brief rise as an oil-drilling center (Zier et al. 1987:2-113). During this same period local stone-quarrying and cement-manufacturing plants were built in the general area, which included plants at Booth Gulch. Quarrying for building stone and clay was conducted at Stone City in Booth Gulch over a ten-to-fifteen year period. Clay mining was a viable operation at Booth Gulch and proved to be more long-lived than the quarrying of stone (Zier et al. 1987:2-115).

Cattle ranches, associated with the Santa Fe Trail, had been established in the area by the 1860s. The first herds were all longhorns brought in from Texas (Zier et al. 1987:2-119-120), although sheep were the more important livestock for a while (Zier et al. 1987:2-127). Settlement in the immediate Fort Carson area took the form of isolated ranches, with most of the area being used as open range (Zier et al. 1987:2-125). A list of the late 19th century ranches in the Fort Carson area is found in (Zier et al. 1987:2-128-133). Between 1912-1939 the Turkey Creek Ranch was used by Spencer Penrose, a prominent figure in local as well as regional history, for livestock ranching and development of a pure Holstein herd. The primary residence is an excellent example of Spanish Revival architecture and was designed by MacLaren & Thomas (Roberts and Schneck 1997:A-3).

Colorado Springs was established in 1871, and in that same decade freight and passenger services were established between Colorado Springs, Cañon City, and South Park (Athearn 1985:99). In 1910 the Kansas-Colorado Railroad Company constructed 21 miles of railroad grade from Pueblo to Booth Gulch primarily to haul stone, clay, and cattle to the city. The Kansas-Colorado Railroad Company went into receivership soon thereafter, and in 1911 it was reorganized as the Colorado-Kansas Railroad Company. Under this leadership additional tracks were constructed to the quarries of Booth Gulch. Maintenance on the tracks was expensive and the constant struggle for funds led to the deterioration of the tracks. As early as 1927 passenger service was discontinued (Carrillo et al. 1991:27). In 1934 the railroad was purchased by another company, but this endeavor never proved very profitable, and the line was used primarily to haul fireclay to Pueblo. The line operated in this capacity until a flash flood washed out a bridge near Stone City in 1951 (Carrillo et al. 1991:31).

Fort Carson Military Reservation began life in the Second World War. Camp Carson was established in 1941, and Ent (later Peterson) Air Force Base was built a year later. Camp Carson was renamed Fort Carson in 1954, and in that same year both the United States Air Force Academy (USAFA) and what would become NORAD were established (Zier et al. 1987:2-137-141).

CHAPTER 3

REVIEW OF PREVIOUS ARCHEOLOGICAL WORK IN THE FORT CARSON MILITARY RESERVATION

At Fort Carson, archeological investigations generally parallel the evolution of twentieth century American archeology, from ill-trained, albeit enthusiastic, amateurs to the theoretically and methodologically sophisticated projects of today's researchers, both private- and university-based. *The Fort Carson Historic Preservation Plan* (HPP), compiled and edited by Zier et al. (1987), contains a detailed discussion of archeological investigations on the reservation and in surrounding areas up to the mid-1980s. The following is therefore intended only as a brief synopsis of past archeological investigations in order to place current work into perspective.

The earliest known archeological work in the area of Fort Carson was conducted in the 1930s and 1940s by E.B. Renaud of the University of Denver; his work is reported in several individual publications (Zier et al. 1987). It was Renaud (1931b) who named the *Turkey Canyon District* and recognized its potential archeological importance. In this district, which is immediately east of Booth Mountain, Renaud identified several prehistoric campsites, some of them with structural remains (5PE60, 5PE63, 5PE649) as well as some rock art (5PE58) and rock shelters (5PE62). Renaud excavated at least one rock shelter site, 5PE62 (Renaud's Shelter), although it is unclear where the excavated materials were repositioned (Zier et al. 1996:41). All of the above-mentioned sites were reevaluated during the current project.

During the 1930s, an amateur historian, CW. Hurd (1960), incorrectly identified a site he thought was Bent's first fort in the Arkansas River Valley. Later excavations and documentary research suggest that this site (5PE64) is later than Bent's stockade and it is also in the wrong place (Zier et al. 1996:41). The findings from testing suggest it is an early homestead (Andrew's Homestead) dating as early as the 1860s. The site is currently fenced and protected and was reevaluated during the current project.

The University of Denver returned to the reservation in the 1960s and surveyed pieces of land along Red Creek, Turkey Creek and Beaver Creek that were to be annexed by the U.S. Army (Withers 1964). A field crew from the university later excavated portions of the Avery Ranch site (5PE56) in 1965 and 1969 (Ireland 1968; Watts 1971, 1975). In that same decade Bass and Cuzco (1963) reported on an aboriginal burial found by amateurs adjacent to Turkey Creek.

More amateur work was conducted by members of the Colorado Archeological Society (CAS) in the first part of the 1970s which resulted in recording two rock art sites (5PE58 and 5PE163). One of these, 5PE58, had originally been located by Renaud (Zier et al. 1996:42). Both sites were revisited by Fort Lewis College over the course of the 1997 field season. As a result of the revisit it was determined that 5PE163 was located incorrectly on the U.S.G.S. quadrangle map, and is the same site as 5PE58.

The appearance of the modern era of cultural resource management witnessed more intensive archeological investigations of the reservation. A 480-acre piece of land that straddled Renaud's original survey area was placed on the National Register in 1976 (5PE14) based on the significant rock art sites and other archeological sites found within its boundaries. However, the district was not fully inventoried until 1988. Six sites within the district boundaries (5PE58, 5PE60, 5PE62, 5PE93, 5PE94, and 5PE926) were reevaluated in 1997. Of these only 5PE58, 5PE62, and 5PE93 contain rock art.

Grand River Consultants (GRC) inventoried approximately one-third of the base between 1978 and 1982 and provided a comprehensive listing of all the different site types found in the reservation (Alexander et al. 1982). A total of 38,291 acres was inventoried resulting in the identification of 98 prehistoric and 51 historic sites. Of these, 35 sites were subsequently test excavated (Hartley et al. 1983). Almost half (41) of the total sites reevaluated in 1997 were recorded during this early inventory.

Other consultants who have contributed materially to the data base and knowledge of the reservation include Goodson and Associates (Burns and Killam 1983), Metcalf-Zier (Zier 1984), and Centennial Archaeology. Most of the work in the past ten years has been conducted by Centennial Archaeology (CA). Centennial Archaeology conducted a cultural resource inventory of 1900 acres and conducted test excavations at several sites in the Multi-Purpose Range Complex (Zier and Kalasz 1985). They also inventoried 2595 acres in Turkey Canyon (Van Ness et al. 1990), and 8639 acres of high-priority areas in other parts of the military reservation (Jepson et al. 1992). In 1984 and 1985, portions of the Avery Ranch Site were excavated by a field crew from Centennial Archaeology (Zier et al. 1988), and in 1986 the Recon John Shelter was excavated (Zier 1989). In addition to these inventories and excavations, Centennial Archaeology conducted test excavations at several other sites, and these are reported in Kalasz et al. (1993) and Van Ness et al. (1990).

Archeologists from Centennial Archaeology prepared a comprehensive *Historic Preservation Plan* for the future management of cultural resources on the reservation (Zier et al. 1987). Preliminary site-location models generated as part of the preservation plan were subsequently tested in the field by Grant and Zier (1987). Since the preparation and implementation of this plan, further work has been conducted under its rubric. Centennial Archaeology was also responsible for producing the Fort Carson Database system to simplify access for managers and researchers to archeological data on the reservation (Mueller 1995).

Besides these large-scale surveys and excavations, smaller surveys have also been conducted: for example, those related to the construction of soil conservation structures, a fiber-optic line, and other small projects (Butler 1990, 1991, 1992). In 1993, Metcalf and Associates surveyed a small portion of land in the southeastern part of the reservation for the City of Colorado Springs. No cultural resources were located (Spath 1993).

Fort Lewis College (FLC) conducted two field seasons in the FCMR, and the results are reported in two documents (Charles et al. 1997a; 1997b). Fort Lewis College conducted an inventory of 1460 acres of high-probability parcels on Booth Mountain during the summer of 1995. Site density is considered high with a total of 35 sites and 78 isolated finds. This figure of 1 site per 42 acres is something of a conundrum considering the limitations of the landscape. Of the 35 sites recorded, the most common site type is the open, flaked-lithic artifact scatter lacking features. A second field season by Fort Lewis College was divided between inventory and testing. Inventory was conducted on 850 acres in separate areas of the FCMR. The inventory resulted in the identification and recording of 27 cultural properties, which included 16 historic and prehistoric sites and 11 isolated finds. Exploratory testing was conducted at a large multi-component site near the Rod and Gun Club at the northwestern portion of the base. This site is a light surface scatter of prehistoric and historic artifacts and twenty-four stone features. Test units were excavated within four of the stone features with additional test units excavated across the site but outside of the stone features. Testing resulted in the identification of a buried prehistoric cultural strata in two areas of the site. The surface structures, however, were determined to be historic; most are related to early military training operations. A charcoal sample from the buried component provided a calibrated radiocarbon AMS age of 570 ± 50 B.P. (Beta-104298: wood charcoal [Charles et al. 1997a:7.67]). There is a 95 % probability that the calibrated age range falls between A.D. 1300 and 1435, which places the occupation during the Middle Ceramic period of Eastern Colorado.

Moreover, a historic buildings inventory (Barnes 1991) has documented over 200 buildings of World War II vintage located close to or within the cantonment. Most recently, The Old Hospital Complex (5EP1778) at Fort Carson has been fully documented by the National Park Service (Connor and Schneck 1996). This semi-permanent complex was constructed during WWII and consists of 59 buildings that functioned as wards, clinics, mess halls, support services, administrative, recreation, and utility structures.

In September of 1996, limited test excavations were conducted near the Mountain Post Sports Complex, located on the Fort Carson Military Reservation (Korgel 1996). Results of the testing identified a large catacomb packed with rusted metal. The catacomb is believed to be part of a larger dump that once was associated with one of two historic ranch complexes. The report does not identify a specific time period for the artifacts, and the exact origin of the dump is inconclusive. No further work was recommended at this location. In that same month, test excavations were completed in the immediate area of Building 10010 of the proposed Turkey Creek National Register District. The purpose of the

testing was to investigate the extent of impacts to any significant subsurface archeological deposits as a result of construction activities over the years. Subsurface testing was conducted in September 1996, and a report of the results was submitted to the National Park Service (Korgel 1996).

Most recently R. Christopher Goodwin and Associates, Inc. published a combined ethnohistoric and ethnographic synthesis for the Fort Carson Military Reservation and Piñon Canyon Maneuver Site (Jones et al. 1998). The primary emphasis of this study is to determine which Native American cultures may have ancestral ties to the two military facilities. A second concern of the report is to identify the range of traditional cultural properties present on these bases.

In conclusion, up to and including 1996, various investigations, conducted for different purposes and by different institutions, have resulted in a total of approximately half of the reservation being inventoried (Zier et al. 1996). The recent work in the Fort Carson Military Reservation has produced at least two important reports published in refereed journals. In 1991, Zier and Kalasz published a synthetic site report of their excavations of the Recon John Rockshelter in *Plains Anthropologist*. A full report of their work is found in Zier (1989). This site is significant for the light it sheds on the transition between the Archaic and Woodland periods in this part of Colorado. Zier and a team of colleagues has also published in the same journal the results of his testing at the Avery Ranch site, important for its information on subsistence and settlement patterns during the Apishapa Phase (Zier et al. 1990). Watts (1971) had earlier produced a master's thesis (University of Denver) on this site. In 1985, a human burial (5PE773) was discovered in the southwest portion of the FCMR. This burial, which dates after 1000 B.P., was found by army personnel during training exercises. The results of the excavation of the burial are reported in *Southwestern Lore* (Butler et al. 1986).

CHAPTER 4

RESEARCH DESIGN AND OBJECTIVES

The federal legal criteria used in this evaluation are found in 36CFR60 and are as follows: the quality of significance in American history, architecture, archeology, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

- A. that are associated with events that have made a significant contribution to the broad patterns of our history; or
- B. that are associated with the lives of persons significant in our past; or
- C. that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. that have yielded or may be likely to yield information in prehistory or history.

Sites may have national, state, or local significance.

The *Colorado Plains Prehistoric Context* (Eighmy 1984: 48-49, 64-65, 77-78, 103, 142-143, 152-153) provides criteria for each of the major cultural periods represented on the Colorado Plains that further assist in the evaluation of a site's significance and potential eligibility nomination to the National Register. Of lesser importance to the project area are the research problems identified for the mountains and foothills by the *Colorado Mountains Prehistoric Context* (Guthrie et al. 1984: *passim*) and the *Colorado Southern Frontier Historic Context* (Mehls and Carter 1984: *passim*).

This present work also conforms to the Historic Preservation Plan mandated for all Army installations under U. S. Army Regulation (AR) 420-40 (Department of Army 1984:2-1):

- 1) To integrate historic preservation requirements with the planning and conducting of military training, construction, other undertakings, and real property or land use decisions;

- 2) To set up a legally acceptable compliance procedure with the Advisory Council on Historic Preservation (AChP) and the State Historic Preservation Officer (SHPO);
- 3) To set priorities for field, analytical, and documentation projects that are designed to develop, evaluate, and manage the inventory of significant historic properties;
- 4) To establish a procedure for evaluating historic properties;
- 5) To provide guidelines for the protection or treatment of historic properties; and
- 6) To identify funding, staffing, and milestones.

The Fort Carson Military Reservation Historic Preservation Plan (HPP) was prepared in 1987 (Zier et al. 1987) by personnel from Centennial Archaeology (Fort Collins, CO), Cultural Research and Management (Bismarck, ND), Statistical Research (Tucson, AZ), and by Kenneth Weber (Boulder, CO). This document provides a comprehensive synthesis of all cultural resources on the base, places these data into a regional context, and offers a detailed plan to ensure the army's compliance with its mandates regarding the correct treatment of cultural resources on army property. Specifically, the Fort Carson HPP "provides cultural resource managers with pertinent background about the prehistoric and historic resource base while outlining procedures for dealing with the resources so that the requirements of applicable historic preservation statutes are fully met" (Zier et al. 1987: 1-2). A Multiple Properties Documentation (MPD) has been completed which identified site types that occur on the base and also establishes criteria for determining archeological significance (Zier et al. 1997a). Most recently the HPP has been revised and is replaced by the Cultural Resources Management Plan (Zier et al. 1997b). The purpose of the Cultural Resources Management Plan (CRMP) is to "identify and evaluate known cultural resources on Fort Carson and to place these resources within their respective culture-historic context; to make predictions about the nature of undiscovered sites while providing criteria for their eventual evaluation; and to develop, on a priority basis, objective and procedures for long-range management of resources that take into consideration both the goals and the day-today requirements of military training" (Zier et al. 1997b:I-i).

Under the CRMP six prehistoric site types and eight historical site types have thus far been identified on the reservation. The prehistoric site types identified include: prehistoric open occupation hearth sites; prehistoric open sites lacking features; prehistoric open structure sites (alignments, enclosure, and wickiups); prehistoric sheltered sites; prehistoric rock art sites (petroglyphs and pictographs); and prehistoric human burial sites. Historic site type identified include the following: historical town sites; historical mining and quarrying-related sites; historical transportation network sites; historical homesteading/agriculture-

related habitation sites; historical homesteading/agriculture-related non-habitation sites; historical human grave sites; and historical military-related sites. An eighth category includes unique historical sites such as historical rock art inscription, which do not easily fit into the previously mentioned site types.

As part of the Fort Carson Multiple Properties Documentation and the Cultural Resource Management Plan for Fort Carson, Zier et al. (1997a, 1997b) identified nine research themes that can be addressed by future archeological work on the base. These include: (1) chronology and cultural relationships; (2) settlement patterns; (3) the nature of prehistoric economics; (4) horticulture; (5) paleoclimates; (6) technology and material culture; (7) architecture; (8) rock art; and (9) geomorphology. Prehistoric sites which may yield information significant to the prehistory of the FCMR include: (1) Pre-Paleo Indian and Paleo Indian sites; (2) Early Archaic period sites; (3) sites with substantial *in situ* buried deposits; (4) stratified multi-component sites; (5) architectural Early and Middle Ceramic period sites; (6) Late Ceramic period (Protohistoric) structural sites; (7) communal kill sites; (8) intact rock art sites; (9) complex lithic material quarries; and (10) unique aboriginal sites (Zier et al. 1997b: II-110-112).

Prehistoric site types regarded as not significant and therefore generally ineligible for NRHP inclusion are represented by isolated artifacts, isolated nonarchitectural features, artifact scatters restricted to the surface, sites damaged by natural or man-induced causes to the extent that physical integrity is limited, and rock art sites that are eroded or which exhibit only hypothesized tool-sharpening grooves (Zier et al. 1997b: II-112).

Research themes established for the Historic period of Fort Carson include the following: homesteading and agricultural settlement; mining; and military occupation and training (Zier et al. 1997b:II-94-100). Historical resources generally considered significant resources include: sites associated with the fur trade, early exploration, and pre-1880 military activities, open range ranching sites, original homestead or ranching structures, sites which contain unique or outstanding examples of architectural styles, periods, construction techniques, materials, or craftsmanship, homestead settlement sites which are particularly representative of site classes, sites which exhibit historically important engineering features or industrial processes, and post-1942 military sites and structures. Sites generally recommended as not eligible for NRHP inclusion are isolated agricultural sites of the post-1900 period, settlement sites which retain poor integrity, and isolated artifacts (Zier et al. 1997b:II-113-114).

CHAPTER 5

FIELD AND LABORATORY METHODS

Introduction

The 1997 Fort Lewis College field season at Fort Carson was divided among two crews of three to four persons each. The field season began with two prefld days for the crew chiefs prior to the arrival of the remainder of the crew. The first full day for the crew commenced August 17 and concluded on September 18. Two field sessions were completed with a total of seven individuals. The third and final session was completed with a crew of five. The MWAC staff member responsible for operation of the precision lightweight GPS receiver (PLGR) divided his time between crews as needed.

Field Methods and Techniques

A list of 89 cultural resources to be reevaluated was supplied to Fort Lewis by the archeologists at Fort Carson in early 1997. At the end of April, 1997 a trip was made to Fort Carson to xerox copies of the site forms for these cultural resources. At that time, the site forms were housed at Building 104, Biology and Wildlife. A xerox machine at this building allowed for copies to be made by Fort Lewis staff. Guidelines for field and laboratory work were minimally established in the proposal (Duke and Charles 1997) for the continuation of the cooperative agreement. It is important to note that as much as possible the project followed the guidelines and definitions of the Fort Carson Historic Preservation Plan (Zier et al. 1987), those of Dean (1992), and the Multiple Properties Documentation (Zier et al. 1997a). The Cultural Resources Management Plan was not made available to us at this time. Particulars for conducting reevaluation of archeological resources, however, are not specified in any of the aforementioned documents. A dialogue was established among Fort Lewis College, MWAC, and Fort Carson for the purpose of qualifying parameters to guide fieldwork. Within these preestablished parameters much of the decision-making in the field was left to the discretion of the project director and crew chief.

In the weeks prior to field work, considerable time and energy were expended toward organizing the forms to facilitate fieldwork. A table was formed in Paradox 4.5 with pertinent information on locational and logistical concerns. Queries were made from the larger table that allowed us to sort the sites by any of the established fields. Given the difficulty with gaining access to some of the training areas of the Reservation such as the Multiple-Purpose Range Complex (MPRC), of great concern was establishing a schedule with Range Control for access to the various training areas. A table sorted by area enabled

us to estimate the time necessary to locate and evaluate the sites in a given area. From the onset we were able to discuss our plans for access with the personnel at Range Control allowing us greater flexibility in the planning process.

In the lab, the map plot of each cultural resource was checked against the Universal Transverse Mercator (UTM) coordinates provided on the site form. Often the two differed, and a note was made of the discrepancy. All resources were then plotted on two sets of U.S.G.S. quadrangle maps. Army training areas were plotted on these maps as well. A packet containing the current site forms and any new forms that needed to be completed for the site reevaluation was available for each cultural resource to be reevaluated.

A relevant and almost daily problem was the lack of conformity between the early inventory standards and the current standards for archeological inventory and evaluation identified in Dean (1992) for the Fort Carson and Pinon Canyon military facilities. Besides the immediate differences between what constitutes an archeological site and the criteria used to evaluate its significance, there is general incongruity between collection strategies and site mapping practices. For example, the early site maps produced by Alexander et al. (1982) did not identify a site boundary and included artifacts and features separated by distances of over 100 meters from the next closest artifact or feature. The requirements for an archeological site as defined in Dean (1992:IV-12), however, are that no artifact can be more than 20 meters from the next nearest artifact to be considered the same site. Collection strategies also differed among individual contractors. Not surprisingly, the earlier the site was recorded, the greater the disparities.

With full appreciation that site recordings were consistent with the established procedures of the time, it was particularly frustrating for the crews to reevaluate sites that had been inventoried during the 1960s through the early 1980s. The earliest sites were recorded on one-page forms completed by M. P. Early and C. McCloskey during the 1960s. Site records from this period consisted of one-page site forms with a brief description of the site and without site maps. A different set of obstacles were encountered with the sites recorded by Grand River Consultants (GRC) in the late 1970s and early 1980s. Firstly, no site boundaries were applied to the rather small scale (large area) site maps. Secondly, collection strategies employed at that time included collection of up to 100 % of the total surface artifact assemblage. With this much of the artifact assemblage collected, it became difficult to determine how the site boundary should be adjusted if at all. In most cases, the site boundary for the early sites was considered to be an arbitrary line drawn around the periphery of the artifacts recorded at the time of the original inventory. Often this boundary included artifacts that were greater than 20 m distance from the last closest artifact, which is inconsistent with the site definitions currently followed for the FCMR (Dean 1992).

The problem of redefining site boundaries was discussed with Ms. Melissa Connor of MWAC who suggested that this problem be brought to the attention of Mr. Steve Chomko, Fort Carson archeologist. The outcome of discussions among MWAC, Fort

Carson, and Fort Lewis personnel was that we would not, as a rule, redefine the boundaries of the early sites to comply with the current standards of Dean (1992), but rather we would describe the particular problems which we encountered on the reevaluation forms. A case in point is site 5PE326 which was recorded by GRC in 1978. This site was recorded as having five loci of prehistoric artifacts all mapped within a single site boundary. In addition to the five prehistoric loci, two historic foundations were subsumed within the same site boundary as the prehistoric loci, but were accorded two separate site numbers. In this case we did not redefine the site boundary, but rather evaluated each prehistoric locus as to its potential to yield information important to the prehistory or history of the FCMR, and recommended that the two historic sites be reevaluated for their potential significance.

As another example, site 5PE319 was divided into two sites since the distance between artifacts was over 75 m, and because the two areas were thematically dissimilar. Site 5PE319 was restricted to the boulder rock art, while a new site number, 5PE2211, was applied to a flaked-lithic and groundstone scatter.

Archeological Site and Isolated Find

The following definitions of archeological site and isolated find were used during the reevaluation process and follow those of Dean (1992). A *prehistoric archeological site* is a locus of five or more unmodified flakes or a single tool associated with one or more unmodified flakes distributed so that no artifact is more than 20 meters from the next nearest artifact. Any prehistoric feature or prehistoric rock art, whether or not it is associated with artifacts, or any prehistoric evidence occurring in the context that suggests high potential for buried cultural materials, is also defined as a site (Dean 1992:IV-12).

A *historic archeological site* is any location that contains material evidence attributable to general Euro-American ideology and manufacture. These include isolated architectural features, historic features, or historic rock art. Implied in Dean, although never explicitly stated, is the criterion that the site must be at least 50 years old to be considered a historic site. Therefore, any locality, feature, or artifact, where its lack of antiquity is not immediately apparent, is recorded as a site. This must be done with a great deal of caution, especially within the military reservation where routine army ground maneuvers leave physical remains that resemble historic features, but where little debris remains to conclusively identify its cultural origin. Features or structures lacking visible artifacts that are presumed to be of prehistoric or historic (> 50 years old) origin are recorded as a site.

A *prehistoric isolated find* is defined as less than five unmodified flakes or a single tool, each of which is separated from the nearest other artifact by no less than twenty meters (Dean 1992:IV-12).

A *historic isolated find* is any locality exhibiting four or fewer artifacts (Dean 1992:IV-12).

Safety

Fort Carson Military Reservation is an active installation where training activities take place simultaneously in separate training areas of the Reservation. These training activities commonly include "live fire"; therefore, safety regulations for the base were rigorously followed. The crew was briefed on these safety regulations by the Project Director and Assistant Director, which included an awareness of military activities and of natural dangers such as rattlesnakes. Each morning a telephone call was placed to the Range Control Office who instructed us in the proposed daily activities scheduled in the FCMR. When any training area was active, field work was confined to the training areas that were inactive and safe. The policy of checking-in via telephone was altered during the course of our field work to that of visiting the Range Control Office daily to have our Range Passes stamped before entering the base. An additional cautionary procedure consisted of checking in at the MPRC and the Air Force installations before entering these training areas.

Communication between field crews was important. Each crew carried a Bendix two-way radio provided by Fort Carson. These radios were left on while in the field. Radio communication between crews greatly improved survey logistics. The radios also provided a way to contact base personnel if needed. A cellular phone was carried in case of an emergency.

Collections

Under the proposal for field work submitted to MWAC by Fort Lewis College (Duke 1997), artifact collection included diagnostic artifacts or unusual items that needed more thorough examination in the laboratory.

Recording

Site Forms and Site Maps

Colorado State Reevaluation Forms were completed on all 89 cultural resources. This form was used to update information on the current Colorado Cultural Resource Survey Forms. If the current forms were considered to be inadequate, new inventory forms were completed. Thus, any site that was recorded on forms in a format other than the current format was completely rerecorded. Ancillary forms such as Rock Art Panel Forms, Historic Architecture Forms, etc. were completed only if changes were made to the original forms or if these forms were altogether lacking. Besides the Colorado State forms, Fort Carson/Piñon Canyon forms were completed as necessary.

Working with the site maps made prior to this project was the single biggest challenge of the project. Xerox copies of the site maps were taken in the field. For many of the earlier recordings, no site maps were available. The xerox copies were amended as necessary in the field to reflect current site conditions. As previously mentioned, a

significant obstacle to accurate map representation was both the lack of keyed site boundaries for sites recorded by GRC, and the particular collection strategies they employed. Decisions as to the current placement of site boundaries was difficult because the present surface assemblage often significantly differed from that present during the original recording. The question often arose as to whether the site boundaries should reflect the original surface scatter or that observed at the time of reevaluation. If the two assemblages differed significantly regardless of whether the site was recommended as significant, a new site map was created. Most often, however, the original site map was amended to reflect current changes. For those sites determined as not significant by FLC, changes were recorded directly on the xerox copy with no further refinements. Maps of sites determined by FLC significant were scanned into a Hewlett Packard Desk Scanner with amendments to the map subsequently made by computer software.

Datum

With the exception of Turkey Creek Ranch (5EP836) and those site which were not located, a rebar datum was placed at every archeological site. The Smithsonian site number was stamped into a metal site tag and attached to the datum. In a few instances rebar datums remained from previous inventories, and a site tag was attached to the original rebar, which was left in-place.

A Precision Lightweight GPS (PLGR) unit was useful for navigating to a known point such as the site datum. The UTM locations of all 89 cultural resources were programmed into the PLGR by MWAC personnel in Lincoln prior to the field season. The UTM locations used in the PLGR were taken directly from the site forms. The PLGR did not correct for declination; therefore, the azimuth readings were in magnetic north. While the PLGR was invaluable in many cases, an inherent problem with the PLGR is that the ability to navigate correctly to a certain position is only as good as the original data with which the PLGR has to operate. In several instances, the UTM information that was supplied to the PLGR was incorrect.

Two Trimble Pathfinder Global Positioning Systems (GPS) were employed during the survey. Written instruction on the use and care of the GPS unit had been provided by Anne Vawser (1996) of the Midwest Archeological Center. Readings obtained in the field were used to plot the datum locations on the field maps and to establish base reference points for locating the resources. For accurate coordinate readings, the GPS units needed to receive signals from a minimum of four satellites although five was preferable. One hundred data points were recorded at the datum of each site. At the end of each day, the data were downloaded from the GPS unit into the Gateway Notebook computer supplied by Fort Lewis College.

The coordinate readings from the GPS are issued as UTM readings in meters. The UTM readings obtained from the GPS units are a priori scrambled, but were corrected during post-processing by Bernard Schriever from Fort Lewis College. Schriever supplied Fort

Carson personnel with formatted diskettes and with the dates and times of our field work. The diskettes were returned to Fort Lewis with the base file information necessary to correct the GPS data. The GPS files were post-processed in Durango, and diskettes containing the post-processed, corrected files were returned to Marilyn Mueller at DECAM.

Photographs

At least two black-and-white photographs were taken of each site. An overview of the site was taken along with a panoramic overview usually taken from the site datum. Whenever possible, at least one of the photographs included a view of topographic features that would help in relocating the site.

Shovel Test and Trowel Probe

Limited shovel test and trowel probes were implemented to determine the potential for buried cultural deposits based on the depth of soils/sediments at the site. Shovel test data were recorded on auger/shovel test forms. Recorded information consisted of the diameter, depth, materials recovered, and a brief stratigraphic description. The shovel test locations were placed on the site map. All artifacts recovered during subsurface explorations were collected and analyzed.

Artifact Analysis

As a rule, flaked-lithic artifacts from the field were not rerecorded in their entirety. In a few instances when the site was completely rerecorded, the flaked-lithic inventory was recorded using the method defined by Ahler (1997). Previously unrecorded groundstone artifacts were recorded on the PCMS/Fort Carson non-portable groundstone forms.

Laboratory Methods and Techniques

Laboratory methods for this project followed those prescribed in Dean (1992). These specifications were rigorously followed throughout the laboratory analysis. Analyses by FLC included analysis of flaked-lithic tools, prehistoric ceramics, one historic artifact, and a single bone tool. All information was coded on the appropriate PCMS/Fort Carson artifact analysis coding forms and the data was entered into dBASE III software for DOS (by Borland).

Flaked-Lithic Artifacts

Flaked-lithic artifacts were divided into the following categories: bifaces, flake tools, cores, blocks, split pebbles, complete flakes, and broken debitage. These categories are the prescribed categories in the PCMS manual (Dean 1992), and from Ahler (1997). All flaked-lithic artifacts were recorded under these categories.

Analysis of the collected flaked-lithic artifacts from the 1997 field season was conducted under the guidelines set forth by Dean (1992) and the revisions issued by Ahler (1997). Raw material classification was based on Ahler (1997). Measurements were taken from the maximum length, width, and thickness whenever possible; weight was measured on complete specimens only. Descriptive terms concerning morphological attributes for bifaces were taken from Lintz and Anderson (1989). Haft measurements, such as neck width, neck height, haft length, and base width were measured when possible regardless of whether or not the haft element was complete. The artifacts were cataloged and attribute analysis was recorded on the appropriate PCMS/Fort Carson forms.

Flaked-Lithic tools

Drills and preforms were compared to illustrations from the literature of Fort Carson and surrounding regions. Primarily, the collected projectile points were compared to Fulgham and Anderson (1984) and Lintz and Anderson (1989) for the Fort Carson/PCMS. Additionally, reports from Fort Carson were used for comparison. These include Alexander et al. (1982), Hartley et al. (1983), Jepson et al. (1992), Kalasz et al. (1993), Van Ness et al. (1990), Zier and Kalasz (1985), and Zier et al. (1996). On occasion, other sources were consulted that included the Bell (1958), Gunnerson (1989), Irwin-Williams and Irwin (1966), and Perino (1971).

Diagnostic attributes, including overall size and hafting morphology (stemmed or flanged, base shape, tang, and shoulder characteristics), provided a visual comparison to determine similarities among projectile point types. As with any nonstatistical projectile point comparison, the results are somewhat subjective. Based on morphological similarities with projectile points from dated contexts, relative dates were assigned to the points whenever possible. Many of the points collected in 1997 were from sites with previous projectile point collections. All the projectile points from each site were referenced and then compared to establish a base line date for the site. Other variables such as the presence of ceramics, groundstone, and structures, were incorporated into the temporal assessment. Results of the flaked-lithic tool analysis from the 1997 collections are presented in Appendix II.

Prehistoric Ceramic Artifacts

Laboratory analysis on the prehistoric ceramic artifacts entailed the descriptive analysis of each ceramic artifact. Physical inspection relied upon the examination of the ceramic artifacts with a 10x hand lens and the unaided eye. The ceramics were gently washed and not brushed prior to examination. A needle-nose pliers was used to snip a small area to observe internal characteristics such as temper and paste. Variables were recorded on the Fort Carson/Piñon Canyon analysis sheets; however, definitions and descriptive analyses are consistent with that of previous studies conducted at Fort Carson (Jepson et al. 1992:199-200; Kalasz et al. 1993:91-93; Peebles 1985; Van Ness et al. 1990:258-259; Zier et al. 1988:163-165; Zier et al. 1996:135-136). Results of the analysis of the ceramics collected during the 1997 reevaluation project are presented in Appendix II.

Historic Artifacts

The one historic artifact, a piece of white earthenware, was collected from the surface at site 5FN181. This artifact was analyzed using the standards required for PCMS/Fort Carson (Dean 1992). This artifact was cataloged and entered on the appropriate PCMS/Fort Carson forms. The reference used to identify the maker's mark was Kovel and Kovel (1992). A portion of the maker's mark identifies the piece as having been manufactured by J. and G. Meakin, Staffordshire, England. A date for the manufacture of the whiteware, however, is not possible.

Faunal Remains

Faunal material was analyzed by FLC students using the comparative collection housed in the Department of Anthropology of the College. Due to the small size of much of the bone, identification of species was not possible.

Cataloging

Procedures for cataloging artifacts for Fort Carson/PCMS are specified in two manuals: *Fort Carson Curation Notebook and Artifact Database Documentation* (Mueller and McBride 1995; and, *Guidelines to Required Procedures for Archeological Field and Laboratory Work at Piñon Canyon Maneuver Site, Las Animas County, Colorado* (Dean 1992). The two procedures are noticeably different and their respective databases are not comparable. At this time solutions to this disparity in catalog systems are currently under review. Because previously collected artifacts from the sites revisited during the 1997 field season had been cataloged by the procedures in Mueller and McBride (1995), this catalog system was used throughout this project.

Database

Changes to the current site database were accomplished at FLC in Durango. Diskettes with the three databases which needed updating were provided by Marilyn Mueller at Fort Carson. Changes to these databases were made in dBASE III at FLC, and the diskettes were returned to Fort Carson.

CHAPTER 6

REEVALUATION RESULTS

Introduction

Three 10-day field seasons by Fort Lewis College during the late summer and fall of 1997 were undertaken to reevaluate 89 cultural properties within the FCMR (Table 6.1). These cultural resources included prehistoric and historic sites and historic standing structures, which ranged in age from the Paleo Indian period through to historic mining and ranching. They are distributed over most of the macroenvironmental zones of Fort Carson, although many are concentrated along or within the Turkey Creek drainage. Site types represented reflect a range from open artifact scatters with or without architecture, rock shelters, and rock art sites, to historic standing structures such as the Turkey Creek Ranch. They were recorded by various organizations who conducted archeological and historical projects at Fort Carson as early as the 1930s and as late as 1993. The site recordings reveal the research objectives and the recording standards at the time of the inventory.

The primary objective of the current project was to evaluate the potential of each site to yield significant information on the prehistory or history of Fort Carson. Criteria used to determine site significance at Fort Carson are found in the Multiple Properties Documentation ([MPD]Zier et al. 1997a) and the Cultural Resource Management Plan ([CRMP]Zier et al. 1997b). These documents categorize sites on the FCMR by research themes and further suggest that sites be included under themes as noncontiguous archeological or historic districts.

A second objective was to standardize the recording for all the sites revisited whether or not they were determined as significant. This was accomplished through a variety of recording techniques that included completing new site forms, remapping sites and updating the more recent site forms. A Colorado Site Reevaluation Form was completed for all the sites revisited.

The 1997 reevaluation project resulted in locating seventy-six of the 89 cultural resources on the list supplied to Fort Lewis. Fifty (56%) of the total 89 cultural resources are determined to have the potential to yield significant information on one or more of the research themes for Fort Carson specified in the MPD (Zier et al. 1997a) and the CRMP (Zier et al. 1997b); therefore, these sites are recommended as eligible for nomination to the NRHP (Table 6.2). The remaining thirty-nine (44%), which includes fourteen sites that were not located, are recommended not eligible for nomination to the NRHP (Table 6.3). Of the

Table 6.1. Sites Reevaluated by Fort Lewis College, 1997.

No.	Site No.	U.S.G.S. 7.5' Quadrangle	*Site Description (Zier et al. 1997b)	†Report	Eligibility Recommendation Yes/No	❖Management Recommendation	Site Name
1	5EP52	Timber Mtn.	LGC	Alexander et al. 1982, Hartley et al. 1983	Y	AP	Grasshopper Terrace
2	5EP53	Timber Mtn.	LG	Alexander et al. 1982	N	NFW	NA
3	5EP56	Timber Mtn.	LCS	Alexander et al. 1982	Y	AP	NA
4	5EP57	Timber Mtn.	LG	Alexander et al. 1982	Y	AP,T	NA
5	5EP71	Timber Mtn.	GS	Alexander et al. 1982	N	NFW	NA
6	5EP77	Buttes	LG	Alexander et al. 1982	N	NFW	NA
7	5EP136	Cheyenne Mtn.	LG	Alexander et al. 1982	N	NFW	NA
8	5EP140	Cheyenne Mtn.	AS	Alexander et al. 1982	N	NFW	NA
9	5EP142	Cheyenne Mtn.	LF	Alexander et al. 1982	N	NFW	NA
10	5EP143	Cheyenne Mtn.	LC	Alexander et al. 1982, Hartley et al. 1983	Y	AP	NA
11	5EP145	Cheyenne Mtn.	LGF	Alexander et al. 1982, Hartley et al. 1983	Y	AP	NA

No.	Site No.	U.S.G.S. 7.5' Quadrangle	*Site Description (Zier et al. 1997b)	†Report	Eligibility Recommendation Yes/No	❖Management Recommendation	Site Name
12	5EP154	Mount Pittsburg	LG	Alexander et al. 1982, Hartley et al. 1983	N	NFW	NA
13	5EP158	Mount Pittsburg	LGFS	Alexander et al. 1982	N	NFW	NA
14	5EP160	Timber Mtn.	LG	Alexander et al. 1982	N	NFW	NA
15	5EP773	Mount Pittsburg	BFL	Butler et al. 1986	N	NFW	Red Creek Burial
16	5EP836	Mount Pittsburg	S	Schweigert 1987, Jepson et al. 1992, Roberts and Schneck 1997	Y	AP,AC	Turkey Creek Ranch
17	5EP1080	Cheyenne Mtn.	LGCF	Jepson et al. 1992	Y	AP, E	Winterfat Site
18	5EP1192	Cheyenne Mtn.	LGCF	Jepson et al. 1992, Kalasz et al. 1993	Y	AP	Windy Ridge Site
19	5EP1345	Timber Mtn.	LGC	Jepson et al. 1992	Y	AP,T	NA
20	5EP1696	Mount Pittsburg	LGC	Zier et al. 1996	Y	AP,E	NA
21	5EP2187	Cheyenne Mtn.	F	Zier et al. 1996	Y	AP,AC	Gale Ditch
22	5FN87	Mount Pittsburg	FS	Alexander et al. 1982	Y	AP, AC	NA
23	5FN179	Pierce Gulch	LG	Alexander et al. 1982	N	NFW	NA
24	5FN180	Pierce Gulch	LGC	Alexander et al. 1982	N	NFW	NA
25	5FN181	Pierce Gulch	LC/AF	Alexander et al. 1982, Hartley et al. 1983	Y	AP,AC	NA

No.	Site No.	U.S.G.S. 7.5' Quadrangle	*Site Description (Zier et al. 1997b)	†Report	Eligibility Recommendation Yes/No	❖ Management Recommendation	Site Name
26	5FN295	Pierce Gulch	S	Alexander et al. 1982	N	NFW	NA
27	5FN497	Pierce Gulch	L	Alexander et al. 1982	N	NFW	NA
28	5FN504	Mount Pittsburg	GS	Alexander et al. 1982	N	NFW	NA
29	5FN505	Mount Pittsburg	LGF	Alexander et al. 1982, Hartley et al. 1983	Y	AP	NA
30	5PE14	Stone City	F	Nicholson 1975	Y	AP, AC	Turkey Canyon Rock Art District
31	5PE52	Timber Mtn.	L/A	† Earley, Huffman 1964	N	NFW	NA
32	5PE54	Timber Mtn.	LC	† Earley, Huffman 1965	N	NFW	NA
33	5PE55	Timber Mtn.	LGC	† Earley, Huffman 1965	N	NFW	NA
34	5PE56	Timber Mtn.	LGCS	Withers 1968; Ireland 1968; Watts 1971, 75; Zier et al. 1988	N	NFW	Avery Site
35	5PE57	Timber Mtn.	LCS	† Huffman 1965	N	NFW	NA
36	5PE58	Stone City	F	Van Ness et al. 1990	Y	AP,T,AC	Circle Site
37	5PE60	Stone City	LGCS	Renaud 1930, 31, 32; Withers 1964; Watts 1971; Zier and Kalasz 1985	Y	AP,T	NA
38	5PE62	Stone City	LGF	Renaud 1931; Van Ness et al. 1990	Y	AP,T	Renaud's Shelter

No.	Site No.	U.S.G.S. 7.5' Quadrangle	*Site Description (Zier et al. 1997b)	†Report	Eligibility Recommendation Yes/No	❖Management Recommendation Yes/No	Site Name
39	5PE63	Stone City	LGCS	Zier et al. 1987; 96. Kalasz et al. 1993	Y	AP	NA
40	5PE64	Stone City	AFS	Hurd 1960; Withers 1964; Zier and Kalasz 1985	Y	AP	Andrew's Homestead (formally Bent's Fort)
41	5PE93	Stone City	LCF	Van Ness et al. 1990	Y	AP,AC	Map Site
42	5PE94	Stone City	F	†Earley 1965	N	NFW	NA
43	5PE163	Stone City	F	†Randall 1972	N	NFW	NA
44	5PE317	Stone City	S	Alexander et al. 1982; Zier et al. 1996	N	NFW	NA
45	5PE319	Stone City	AF	Alexander et al. 1982; Carrillo et al. 1991	Y	AP	Stone City, Calcine Kiln
46	5PE320	Stone City	AFS	Alexander et al. 1982; Carrillo et al. 1991	N	NFW	Kansas-Denver Railroad
47	5PE321	Stone City	LGF	Alexander et al. 1982	Y	AP,AC	NA
48	5PE326	Pierce Gulch	LGC	Alexander et al. 1982	Y	AP,AC	Site of Many Loci
49	5PE328	Pierce Gulch	LGC	Alexander et al. 1982	N	NFW	NA
50	5PE331	Stone City	AFS	Alexander et al. 1982	N	NFW	NA
51	5PE336	Stone City	LCS	Alexander et al. 1982	N	NFW	NA
52	5PE338	Stone City	LGCF/S	Alexander et al. 1982; Van Ness 1990	Y	AP,T	NA

No.	Site No.	U.S.G.S. 7.5' Quadrangle	*Site Description (Zier et al. 1997b)	†Report	Eligibility Recommendation Yes/No	❖ Management Recommendation	Site Name
53	SPE348	Stone City	LGF	Alexander et al. 1982; Zier et al. 1996	N	NFW	NA
54	SPE352	Stone City	LG	Alexander et al. 1982; Zier et al. 1996	N	NFW	NA
55	SPE353	Pierce Gulch	LF	Alexander et al. 1982	N	NFW	NA
56	SPE355	Pierce Gulch	F	Alexander et al. 1982	Y	AP,AC	NA
57	SPE356	Pierce Gulch	F	Alexander et al. 1982	Y	AP,AC	NA
58	SPE357	Pierce Gulch	F	Alexander et al. 1982	Y	AP,AC	NA
59	SPE363	Stone City	L	Alexander et al. 1982	N	NFW	NA
60	SPE366	Stone City	LS	Alexander et al. 1982	Y	AP,T	NA
61	SPE461	Mount Pittsburg	LG	Alexander et al. 1982; Hartley et al. 1983	Y	AP	NA
62	SPE623	Pierce Gulch	LGC	Zier et al. 1987	Y	AP,T	NA
63	SPE648	Stone City	LGCF	Zier and Kalasz 1985; Zier 1989	Y	AP,E	Recon John Shelter
64	SPE649	Stone City	LGCS	Zier and Kalasz 1985	Y	AP	Mary's Shelter
65	SPE738	Pierce Gulch	LGF	Zier et al. 1987	Y	AP,T	NA
66	SPE743	Stone City	LGS/S	Zier et al. 1987	Y	AP,AC	NA
67	SPE745	Pierce Gulch	LG	Zier et al. 1987	Y	AP,T	NA

No.	Site No.	U.S.G.S. 7.5' Quadrangle	*Site Description (Zier et al. 1997b)	†Report	Eligibility Recommendation Yes/No	❖Management Recommendation	Site Name
68	5PE746	Stone City	LGS	Zier et al. 1987	N	AC	Wickiup Site
69	5PE750	Stone City	LFS	Zier et al. 1987; Charles et al. 1997a	Y	AP,T	NA
70	5PE793	Stone City	AFS	Schwiegert 1987; Carrillo et al. 1991	Y	AP	Stone City
71	5PE796	Stone City	LGF	Zier et al. 1987	Y	AP,AC,T	NA
72	5PE868	Timber Mtn.	LGCES	Van Ness et al. 1990; Kalasz et al. 1993	Y	AP,E	Ocean Vista
73	5PE889	Timber Mtn.	LGS	Van Ness et al. 1990	Y	AP	Sullivan Butte
74	5PE904	Timber Mtn.	LGCF	Van Ness et al. 1990; Kalasz et al. 1993	Y	AP	Woodbine Shelter
75	5PE910	Timber Mtn.	LGCF	Van Ness et al. 1990; Kalasz et al. 1993	Y	AP,E	Gooseberry Shelter
76	5PE926	Stone City	LGS	Van Ness et al. 1990	Y	AP	Susie's Place West
77	5PE1120	Stone City	LGS	Van Ness et al. 1990	Y	AP	Butler Site
78	5PE1571	Stone City	LG	Zier et al. 1996	N	NFW	NA
79	5PE1576	Stone City	LGF	Zier et al. 1996	N	NFW	NA
80	5PE1577	Stone City	LF	Zier et al. 1996	N	NFW	NA
81	5PE1584	Stone City	L	Zier et al. 1996	N	NFW	NA

No.	Site No.	U.S.G.S. 7.5' Quadrangle	*Site Description (Zier et al. 1997b)	†Report	Eligibility Recommendation Yes/No	❖ Management Recommendation	Site Name
82	5PE1588	Stone City	L	Zier et al. 1996	Y	AP,AC	NA
83	5PE1594	Stone City	GF	Zier et al. 1996	N	NFW	NA
84	5PE1595	Stone City	F	Zier et al. 1996	N	NFW	NA
85	5PE1603	Stone City	LG	Zier et al. 1996	Y	AP,AC	NA
86	5PE1604	Stone City	LGF	Zier et al. 1996	N	NFW	NA
87	5PE1606	Stone City	LGS	Zier et al. 1996	Y	AP	NA
88	5PE1607	Stone City	LGS	Zier et al. 1996	Y	AP	NA
89	5PE1610	Stone City	LG	Zier et al. 1996	Y	AP	NA

* B=Bone C=Ceramic F=Feature G=Groundstone L=Flaked-lithics M=Macrobotanical
 AC=Additional recording AP=Avoid and protect NFW=No further work T=Test E=Excavate
 ♦ + Site forms only

Table 6.2. Reevaluated Sites Recommended as Eligible for Nomination to the NRHP.

No.	Site No.	*Site Description (Zier et al. 1997b)	★Temporal Affiliation(s) Zier et al. (1997b)			Rock Shelter Yes/No	†Rock Art Presence/Absence
			Temp 1	Temp 2	Temp 3		
1	5EP52	LGC	EC/MC	NA	NA	N	A
2	5EP56	LGS	MC	NA	NA	N	A
3	5EP57	LG	EC	NA	NA	N	A
4	5EP143	LC	EC/MC	NA	NA	Y	A
5	5EP145	LGF	PR	NA	NA	Y	A
6	5EP836	S	HS	NA	NA	N	A
7	5EP1080	LGCF	EC/MC	NA	NA	N	A
8	5EP1192	LGCF	EC	MC	NA	N	A
9	5EP1345	LGC	Paleo	MA	EC/MC	Y	A
10	5EP1696	LGC	LA/EC	NA	NA	N	A
11	5EP2187	F	HS	NA	NA	N	A
12	5FN87	FS	PR	NA	NA	Y	Pp
13	5FN181	LC/AF	LA/EC/MC	HS	NA	N	A
14	5FN505	LGF	EC	NA	NA	Y	A
15	5PE14	F	PR	NA	NA	Y	Pp
16	5PE58	F	PR	NA	NA	Y	Pp
17	5PE60	LGCS	MC	NA	NA	N	A
18	5PE62	LGF	LA/EC	NA	NA	Y	Pp
19	5PE63	LGCS	MC	NA	NA	N	A
20	5PE64	AFS	HS	NA	NA	N	A
21	5PE93	LCF	MC	NA	NA	Y	Pp
22	5PE319	AF	HS	NA	NA	N	A

No.	Site No.	*Site Description (Zier et al. 1997b)	★Temporal Affiliation(s) Zier et al. (1997b)			Rock Shelter Yes/No	†Rock Art Presence/Absence
			Temp 1	Temp 2	Temp 3		
23	5PE321	LGF	PR	NA	NA	N	Pp
24	5PE326	LGC	EC/MC	NA	NA	Y	A
25	5PE338	LGCF/S	EC/MC	NA	NA	Y	A
26	5PE355	F	PR	NA	NA	Y	Pp
27	5PE356	F	PR	NA	NA	Y	Pp
28	5PE357	F	PR	NA	NA	Y	Pp
29	5PE366	LS	MA/LA	NA	NA	Y	A
30	5PE461	LG	LA/EC	NA	NA	N	A
31	5PE623	LGC	EC/MC	NA	NA	N	A
32	5PE648	LGCF	MA	LA	MC	Y	A
33	5PE649	LGCS	EC	MC	NA	N	A
34	5PE738	LGF	EC/MC	NA	NA	N	A
35	5PE743	LCS/S	PR	HS	NA	Y	A
36	5PE745	LG	MC/LC?	NA	NA	Y	A
37	5PE750	LFS	EC/MC	NA	NA	N	Pp
38	5PE793	AFS	HS	NA	NA	N	Ph
39	5PE796	LGF	EC	NA	NA	Y	Pp
40	5PE868	LGCFS	EC	MC	NA	N	A
41	5PE889	LGS	MA	MC	NA	N	A
42	5PE904	LGCFS	EC/MC	NA	NA	Y	A
43	5PE910	LGCF	EA/MA	LA	EC	Y	A
44	5PE926	LGS	MC	NA	NA	N	A
45	5PE1120	LGS	MC	NA	NA	N	A
46	5PE1588	L	PR	NA	NA	N	A
47	5PE1603	LG	PR	NA	NA	N	A

No.	Site No.	*Site Description (Zier et al. 1997b)	★Temporal Affiliation(s) Zier et al. (1997b)			Rock Shelter Yes/No	†Rock Art Presence/ Absence
			Temp 1	Temp 2	Temp 3		
48	5PE1606	LGS	PR	NA	NA	N	A
49	5PE1607	LGS	PR	NA	NA	Y	A
50	5PE1610	LG	PR	NA	NA	Y	A

* L=flaked lithics G=groundstone C=ceramics S=structure F=feature A=historic artifact

★ PR=unknown prehistoric HS=historic EA=Early Archaic MA=Middle Archaic LA=Late Archaic
EC=Early Ceramic MC=Middle Ceramic LC=Late Ceramic

† P=Prehistoric H=Historic

Table 6.3. Reevaluated Sites Recommended as Not Eligible for Nomination to the NRHP.

No.	Site No.	*Site Description (Zier et al. 1997b)	★Temporal Affiliation(s) (Zier et al. 1997b)			Rock Shelter Yes/No	†Rock Art Presence/Absence
			Temp 1	Temp 2	Temp 3		
1	5EP53	LG	MA	EC/MC	MC/LC	N	A
2	5EP71	GS	PR	NA	NA	N	A
3	5EP77+	LG	PR	NA	NA	N	A
4	5EP136+	LG	PR	NA	NA	N	A
5	5EP140	AS	HS	NA	NA	N	A
6	5EP142	LF	PR	NA	NA	Y	A
7	5EP154+	LG	PR	NA	NA	N	A
8	5EP158+	LGFS	AR	NA	NA	N	A
9	5EP160	LG	LA/EC	NA	NA	N	A
10	5EP773	LF	EC	NA	NA	N	A
11	5FN179	LG	LA/MC/LC?	NA	NA	N	A
12	5FN180	LGC	EC/MC	NA	NA	N	A
13	5FN295	S	PR	NA	NA	Y	A
14	5FN497	L	PR	NA	NA	N	A
15	5FN504	GS	PR	NA	NA	N	A
16	5PE52+	L/A	PR	HS	NA	Y	A
17	5PE54+	LC	EC/MC	NA	NA	N	A
18	5PE55+	LGC	EC/MC	NA	NA	N	A
19	5PE56	LGCFS	MC	NA	NA	N	A
20	5PE57+	LCS	MC	NA	NA	N	A
21	5PE94+	F	PR	NA	NA	N	Pp
22	5PE163‡	F	PR	NA	NA	Y	Pp

No.	Site No.	*Site Description (Zier et al. 1997b)	★Temporal Affiliation(s) (Zier et al. 1997b)			Rock Shelter Yes/No	†Rock Art Presence/Absence
			Temp 1	Temp 2	Temp 3		
23	5PE317	S	PR	NA	NA	N	A
24	5PE320	AFS	HS	NA	NA	N	A
25	5PE328 ⁺	LGC	LA	EC	MC	N	A
26	5PE331 ⁺	FS	HS	NA	NA	N	A
27	5PE336	LCFS	PR	NA	NA	N	A
28	5PE348	LGF	PR	NA	NA	N	A
29	5PE352+	LG	PR	NA	NA	N	A
30	5PE353+	LF	PR	NA	NA	N	A
31	5PE363	L	LA/EC	NA	NA	N	A
32	5PE746	LGS	LC?	NA	NA	N	A
33	5PE1571	LG	MC	NA	NA	N	A
34	5PE1576	LGF	PR	NA	NA	N	A
35	5PE1577	LF	PR	NA	NA	N	A
36	5PE1584	L	PR	NA	NA	Y	A
37	5PE1594	GF	PR	NA	NA	N	A
38	5PE1595	F	ND	NA	NA	N	A
39	5PE1604	LGF	PR	NA	NA	N	A

+ Unable to locate □ Destroyed ‡Recorded as another site

* B=Bone C=Ceramics F=Feature G=Groundstone L=flaked-lithics
 M=Macrobotanical S=Structure A=Historic artifact

★ PR=Unknown prehistoric HS=Historic EA=Early Archaic MA=Middle Archaic LA=Late Archaic
 EC=Early Ceramic MC=Middle Ceramic LCA=Late Ceramic ND=not determined

† p=Prehistoric h=Historic

fourteen (16%) cultural resources that were not relocated, one site, 5EP77, is in an Impact Area permanently closed to civilians; one site, 5PE163, was recorded under a different number; two sites, 5PE328 and 5PE331, no longer exist; and ten others we were not able to convincingly locate. The twenty-five (28%) remaining sites are recommended as not eligible for nomination to the NRHP for a variety of reasons (i.e., excavated, partially destroyed), and they are described in the individual site discussions.

The sites evaluated are within three counties: El Paso, Fremont, and Pueblo. Table 4 presents the resources by recommended eligibility status and by counties for the 1997 reevaluation project. The disparity among counties is not solely the result of acreage, but rather also reflects more thorough coverage in the high probability sample areas such as along Booth Mountain and the Turkey Creek drainage in Pueblo County.

Table 6.4. Cultural Resources Eligibility Recommendations for 1997 Reevaluation Project.

County	Eligible		Not Eligible	
	No.	%	No.	%
Pueblo	36	41	25	28
El Paso	11	12	9	10
Fremont	3	3	5	6
Subtotal	50	56	39	44
Total	89 (100%)			

Site Reevaluations

A short discussion of each site is presented in this section along with significance evaluations and management recommendations. The discussion is organized by county and by sequential Smithsonian numbers.

El Paso County

5EP52

This Early to Middle Ceramic period site was correctly plotted on the U.S.G.S. map and was easily located. A rebar datum with a stamped site tag was placed at the site. The

site was originally recorded in 1980 by GRC and reported in Alexander et al. (1982). The site was subsequently tested in 1982, and the results demonstrated that the cultural deposits are relatively shallow (Hartley et al. 1983). However, the site is of considerable size and displays a diversity of artifact types. The location of the site along an alluvial terrace suggests that the potential for significant *in situ* buried deposits, albeit shallow, is present. The site has the potential to yield important information under the research themes of chronology and cultural relationships, settlement patterns, and prehistoric economies as defined by Zier et al. (1997a; 1997b) and is therefore recommended as eligible for nomination to the NRHP.

Management Recommendation

Avoid and protect.

5EP53

This site was located correctly on the U.S.G.S. map, and the original datum was present. A new rebar datum with a stamped site tag was established in the area of the original datum. Roughly 150 artifacts are present at the surface. The site was recorded by GRC in 1980 and reported in Alexander et al. (1982). The original investigators noted that the site contained roughly 1000 artifacts and an ashy quality in the road. The ashy stain in the road, however, does not appear to be ash, but sand with shale and perhaps enriched with organic materials. Most of what was thought to be artifacts in the road are in fact natural (or Army) cracked chert and quartzite pebbles. Characteristics such as bulbs of percussion, negative bulbs of percussion, or the presence of flake margins were primarily absent on these pebbles. No groundstone or flaked-lithic tools were located at the time of reevaluation; however, 43 "diagnostic" artifacts and 162 flaked-lithic artifacts were previously collected by GRC. Five of the 43 "diagnostic" artifacts were projectile points, and no ceramics were collected from the site. The remaining "diagnostic" artifacts consisted of manos, metates, drills, unifaces, and bifaces. The original surveyors suggest that the site is multiple-component with artifacts diagnostic from the Middle Archaic, Early, Middle, and Late Ceramic periods. During the revisit, two shovel tests were placed in stable portions of the site to determine depth of sediments; no artifacts or cultural deposits were encountered in either test. Bedrock was encountered between 20-26 cm below the surface. Based on observations made during the reevaluation, it is suggested the artifacts are primarily restricted to the present surface. It is therefore determined that the previous collection strategy has exhausted the site's research potential, that the site no longer has the potential to yield important information, and therefore is not recommended as eligible for nomination to the NRHP.

Management Recommendation

No further archeological work is recommended at this site.

5EP56

The site was easily located using the plotted location on the U.S.G.S. map. A rebar datum with a stamped site tag was established in the location of Datum A on the original site

map. The site has probably suffered impacts on the south end. The wall alignment on the south end seems unusual compared to the north end. On the north end rock has been obviously stacked near the edge of the ridge. Along the south end, the alignment has slight sediment berms with small pieces of sandstone, and the alignment is recessed from the edge. Vegetation between the two ends differs as well. The north end has more brush while the south end is flat with short grasses. Three ceramics were collected from the surface during the revisit (Appendix II). Ceramic artifacts had not been documented when the site was originally recorded by GRC in 1980 and reported in Alexander et al. (1982). Despite the probable disturbance, the rock alignment displays contextual integrity. Feature 1 was not located; however, a few pieces of fire-cracked rock were noted in the general area of the feature. The site is recommended eligible for nomination based on the following research themes defined by Zier et al. (1997a, 1997b): chronology and cultural relationships, settlement patterns, prehistoric economies, and architecture.

Management Recommendation

Avoid and protect

5EP57

This site was originally recorded in 1980 by GRC and reported in Alexander et al. (1982). The site was plotted correctly on the U.S.G.S. quadrangle map and was easily located. A rebar datum with a stamped site tag was placed as close as possible to the location of Datum B as illustrated on the original site map. At first the artifacts appeared to be limited to the surface; however, a shovel test indicated the possibility of a buried deposit from 0-20 cm below the surface. Sediments are very sandy and loose, with a single white-chert flake recovered from the subsurface. The original investigators collected a diagnostic corner-notched projectile point typically associated with the Early Ceramic period. The site is determined to have the potential to yield significant information and therefore is eligible for nomination to the NRHP under the research themes of chronology and cultural relationships, prehistoric economies, and settlement patterns as defined by Zier et al. (1997a, 1997b).

Management Recommendation

Avoid and protect. Conduct limited testing to determine the integrity of *in situ* buried cultural deposits.

5EP71

This site appears little changed from when it was originally recorded in 1980 by GRC and reported in Alexander et al. (1982). However, the site was almost 100 m south of where it was plotted on the U.S.G.S. quadrangle map. A rebar datum with a stamped site tag was placed at the site. The architecture is not of military origin despite the fact that no artifacts other than the metate were found at this location. The period of use of the site is unknown prehistoric. A shovel test was placed near the stone circle. This screened sample was terminated at a depth of 24 cm. No artifacts were recovered from the samples. Small rock and caliche mottling were present in the bottom 11 cm as the sediments became increasingly

compact. This site may represent a temporary shelter or blind that incorporated natural sandstone. Based on the absence of artifacts in the area and the lack of sediment depth, the site is not recommended as eligible for nomination to the NRHP.

Management Recommendation

No further archeological work is recommended at this site.

5EP77

This site was not reevaluated due to its location within a large impact area which is permanently closed to civilians and therefore inaccessible. The site was previously recorded by GRC in 1980 and reported in Alexander et al. (1982). The site was assigned a temporal designation of general prehistoric by these investigators. The previous recommendation that the site has the potential to yield significant information about the prehistory of the area (Martin 1980a) should remain in effect until the original eligibility recommendation can be supported or refuted.

Management Recommendation

The site is in an impact area which is permanently closed to civilians. It is recommended that the site be reevaluated by personnel which have the authority to enter this area.

5EP136

This site was not relocated by FLC. It was originally recorded by GRC in 1978 and reported in Alexander et al. (1982) as an artifact scatter of general prehistoric origin. Using the plot on the U.S.G.S. quadrangle map, the general area along Red Creek was inspected. The surface within the general area (200 m²) was densely vegetated. The artifacts originally noted on the site form had all been collected, and the original site map did not convincingly match the present topography. The search for the site was conducted over a reasonable time period (2 hr) before deciding that the site could not be confidently relocated.

Management Recommendation

No further archeological work is recommended at this site.

5EP140

This site was located accurately on the U.S.G.S. quadrangle map, and the site map was accurate. The site was originally recorded by GRC in 1979 and reported in Alexander et al. (1982). The site consists solely of a concrete (poured) slab with a layer of gravel over the top and a narrow strip of grass in the middle. There remains no indication that a structure was ever present here. No additional artifacts were located other than recent military cartridge casings, 6 wood posts (6 ft), and a 1" x 4" post. The site probably was associated with the recent military. A rebar datum with a stamped site tag was placed near the center of the concrete feature. There is no research potential beyond that of mapping and recording. The site is not recommended as eligible for nomination to the NRHP.

Management Recommendations

No further archeological work is recommended at this site.

5EP142

The site was located properly on the U.S.G.S. and was easily located. The site consists of sharpening groove panels in a small shelter. One chert flake was found below the shelter when the site was first recorded. The temporal affiliation of the site is unknown prehistoric. The flake was collected during the original inventory by GRC in 1979 and reported in Alexander et al. (1982). During reevaluation a flake was found on the slope below the shelter. In the interior of the shelter are gravels and exposed bedrock. At the maximum, only about 10 cm of loose fill is present in the rock interstices. The site was remapped and a rebar datum with a stamped site tag was placed in front of the shelter. The shelter has little potential for buried materials or for significant archeological information beyond that already recorded; therefore, the site is recommended as not eligible for nomination to the NRHP.

Management Recommendation

No further archeological work is recommended at this site.

5EP143

This site was easily located using the plotted location on the U.S.G.S. quadrangle map. The rebar datum from the previous inventory by GRC in 1979 was relocated, and the original aluminum tag was replaced with a new stamped site tag. The site was reported in Alexander et al. 1982, and tested in 1982. Test results were reported in Hartley et al. (1983). Previous testing at the site established that the site does possess buried artifacts, but that the site has been disturbed. Over 600 artifacts were recovered in the testing of 20 % of this shelter site (Hartley et al. 1983). Although it was suggested that the stratigraphy may be problematic, the authors identified two possible temporal components at the site based on diagnostic artifacts (projectile points, ceramic artifacts). A small straight-flanged projectile point was collected from the site during the 1997 revisit along with two cord-marked ceramic sherds (Appendix II). The projectile point and the ceramics suggest Early Ceramic through Late Prehistoric periods affiliation. The site is recommended as having the potential to yield significant information and is eligible for nomination under the research themes of chronology and cultural relationships, settlement systems, prehistoric economies, and paleoclimates as defined by Zier et al. (1997a, 1997b).

Management Recommendation

Avoid and Protect.

5EP145

This site was recorded by GRC in 1979 and reported in Alexander et al. (1982). The site was located using the plot on the U.S.G.S. quadrangle map. A rebar datum with a stamped site tag was placed in the area of the original datum, which was not located. The

gravelly surface appears to indicate little sediment deposition; however, a 50 cm x 50 cm test pit exposed a buried stratum of ash and charcoal when it was tested in 1982 (Hartley et al. 1983). This suggests that the site has potential for significant *in situ* buried cultural deposits. The test pit also recovered ten flaked-lithic artifacts. Temporally diagnostic artifacts were not recovered from the site; therefore, affiliation remains general prehistoric although Hartley et al. (1983) suggest that the site is of Late Prehistoric period affiliation. The site is recommended as eligible for nomination under the research themes of chronology and cultural relationships, paleoclimates, settlement and subsistence, and prehistoric economies as defined by Zier et al. (1997a, 1997b).

Management Recommendation

Avoid and protect.

5EP154

This site was originally recorded by GRC in 1979 and reported in Alexander et al. (1982) and tested in 1983 (Hartley et al. 1983). The specific period of site occupation was not determined. A larger area (150 m x 150 m) identified as the site location on the U.S.G.S. quadrangle map was searched intensely by four crew members spaced 15 m apart. No datum was located, no flaked-lithic scatter was recognized, and we were unable to identify the topographic and flora features such as vegetation groupings and general contour elevations as indicated on the original site map. The search was conducted over a two-hour period. Over 70 % of the surface artifacts were collected during the original inventory (Martin 1980b). This intensive collection strategy also hampered proper site identification. A datum was not placed in this location because it was not satisfactorily identified as 5EP154. The site is not eligible for nomination to the NRHP.

Management Recommendation

No further archeological work is recommended at this site.

5EP158

This site was originally recorded as an Archaic flaked-lithic scatter by GRC in 1979 and reported in Alexander et al. (1982). The location identified on the U.S.G.S. quadrangle map was intensively searched. We found no site datum nor could we confidently conclude that we were in the general area of the site map. Flaked-lithic artifacts were found within the general area (200 m diameter) specified on the U.S.G.S. quadrangle map location, but the description on the site form did not persuade us that we were at the location of site 5EP158. We spent 2 hours at this location, but the site as described and originally mapped was not convincingly located; therefore, no datum was placed at this location. The site is not recommended as eligible for nomination to the NRHP.

Management Recommendation

No further archeological work is recommended at this site.

5EP160

The site was originally recorded by GRC in 1979 and reported in Alexander et al. (1982) as a Late Archaic or Early Ceramic period flaked-lithic scatter. The site was located correctly on the U.S.G.S. quadrangle map and was easily located. A rebar datum with a stamped site tag was placed at the original datum location identified on the site map. Approximately half of the artifacts from the site had been previously collected. An additional 104 artifacts were located during the reevaluation, including 3 projectile points. Besides the projectile points, a scraper and a biface were collected. Analysis of the points collected from 1997 supports the initial determination of Archaic to Early Ceramic period occupation of the site (Appendix II). A shovel test demonstrated the presence of extensive gravels at 15 cm below the surface. No artifacts were recovered from this test. Based on the lack of soil development, the presence of Pleistocene gravels, and the lack of potential for significant *in situ* buried cultural deposits, the site is recommended as not eligible for nomination to the NRHP. The examination and collection of artifacts from the site has exhausted the site's research potential.

Management Recommendation

No further archeological work is recommended at this site.

5EP773 (Red Creek Burial)

The site was not located correctly on the U.S.G.S. quadrangle map. However, with the aid of the site description and the article from *Southwestern Lore* (Butler et al. 1986), the location was identified. A GPS location was taken at the site which consisted of a human burial and associated feature. The site was originally recorded by Chomko and Butler in 1985 and reported in Butler et al. (1986). The site has been completely excavated, the remains analyzed, and the data reported. The burial is associated with the Early Ceramic period (Butler et al. 1986). Therefore, the research potential of the site has been exhausted. The site is not eligible for nomination to the NRHP. A rebar datum was not placed at this location due to the extent of the excavations which have completely removed all archeological deposits.

Management Recommendation

No further archeological work is recommended at this site.

5EP836 (Turkey Creek Ranch)

This site comprises the historic Turkey Creek Ranch. The site is located correctly on the U.S.G.S. quadrangle map. A datum was not placed at this site. The site was originally recorded by Kurt P. Schweigert in 1985. Site forms were completed at the time and a short report describing the structures soon followed (Schweigert 1987). The site was reevaluated during an inventory conducted by CA (Jepson et al. 1992). Most recently a HABS Level II documentation of twenty-one structures was conducted by MWAC (Roberts and Schneck 1997). The site was recommended as eligible for nomination to the NRHP Historic Properties Register by the Colorado SHPO on October, 1994. One contributing structure,

Building 10010, was damaged in 1996 by construction activities (Korgel 1996). The integrity of the structure was compromised. Test excavation was conducted in the area of the building after impact. Excavation results suggest that the areas west and south of the structure may contain significant intact deposits (Korgel 1996).

Management Recommendation

Complete a thorough archeological inventory of the Turkey Creek Ranch to identify archeological resources in addition to the historic buildings. Submit the nomination form to the National Register of Historic Places to list the ranch as a National Register District. Formulate a management plan for the continued development of this facility, which would include the contributing historical resources and the archeological potential, if it exists.

5EP1080 (Winterfat Site)

The site was located correctly on the U.S.G.S. quadrangle map with only slight changes in the UTM readings. The map was accurate except that Little Fountain Creek was mislabeled on the site map. No datums were located, so a new rebar datum with a stamped tag was established close to the original datum location. The site was originally recorded by CA in 1988 and reported in Jepson et al. (1992). The site has flaked-lithic artifacts including tools, ceramics, bone, fire-cracked rock, and groundstone at the surface. During the revisit three ceramics, a biface, a preform, and a projectile point were collected (Appendix II). Diagnostic artifacts collected from the two recording sessions indicate the site was occupied during the Early Middle Ceramic periods (Appendix II). A recent trench shows sediment depth to be at least 40 cm below the surface. A dark, charcoal-enriched stain exposed in the roadcut is interpreted to be a midden. Also, in the middle of this same roadcut are two features, both charcoal-enriched. Three manos (two complete and one fragment) are concentrated in one of the features. The area around the manos is oxidized and has a charcoal fill. This appears to be the remains of a hearth. It is uncertain what the other stain represents however. The site has research potential under the themes of prehistoric settlement systems and economies, chronology and cultural relationships, and possibly horticulture as defined by Zier et al. (1997a, 1997b).

Management Recommendations

The site should definitely be avoided by all ground-disturbing activities. In the immediate future the features in the road should be excavated, and the midden should be stabilized.

5EP1192 (Windy Ridge)

This site was recorded by CA in 1989 and reported in Jepson et al. (1992) and later tested by this same archeological company (Kalasz et al. 1993). The site was located correctly on the U.S.G.S. quadrangle map, and one PVC datum was located. A rebar datum with a stamped site tag was placed at the original datum location. The site map did not match exactly with angles or distances, so a few new reference points were placed on the map, and the fence was realigned on the site map to reflect its position in relation to the site. New artifacts were mapped and a few were collected. Collected artifacts include four

projectile points, one bifacial thinning flake, and one ceramic (Appendix II). Testing of this site has clearly established subsurface features and artifacts in datable contexts (Kalasz et al. 1993), although Kalasz et al. (1993:315) determined the site did not have the potential to contribute substantially to the state of understanding of the site or to any themes in the HPP. However, the site has yielded significant information on the occupation of the FCMR during the Early and Middle Ceramic periods. The site has the potential to yield information on the research themes of prehistoric economies, settlement systems, chronology and cultural relationships, and horticulture as defined by Zier et al. (1997a, 1997b). Therefore, it is recommended that the site is eligible for nomination to the NRHP.

Management Recommendations

Avoid and protect.

5EP1345

This site was located approximately 100 m south of where it was plotted on the U.S.G.S. quadrangle map. The photograph from the site form, however, aided us in conclusively identifying the site. The site was recorded in 1990 by CA and reported in Jepson et al. (1992). The PVC datum was located, and a rebar datum with a stamped site tag was placed 1 m north of the PVC datum. Except for groundstone artifacts, all surface artifacts had been collected during the original 1990 recording. The surface was, however, reinventoried during this revisit to the site, and a new site map was drawn. One metate fragment, a biface tip, a biface, and fifty-six flakes were identified. A trowel test recovered the base of an Eden projectile point and a single flake between 0-5 cm below the present surface (Appendix II). The trowel testing was not continued beyond this because site significance had been established at this point. The projectile point base may represent a curated item, or it may indicate multiple occupations. An exfoliated ceramic collected in 1997 was the first ceramic to have been recorded at the site (Appendix II). The diagnostic artifacts collected from the two recording sessions suggest that the site may be multiple-component with occupation perhaps occurring during the Late Paleo Indian, the Middle Archaic, and the Early to Middle Ceramic periods (Appendix II). The site is recommended as eligible for nomination based on the research themes of culture and chronology, paleoclimates, prehistoric economies, and settlement patterns as identified by Zier et al. (1997a, 1997b).

Management Recommendation

Avoid and protect. Conduct limited testing to investigate the possibility of a buried Paleo Indian period component.

5EP1696

The site, which had been recorded by CA in 1991 and reported in Zier et al. (1996), was accurately located on the U.S.G.S. map, and the site map was accurate. A rebar datum with a stamped site tag was placed at the site. Two bifaces, a scraper, and a projectile point (Appendix II) were collected during the revisit. These artifacts, along with a cobble mano,

were added to the site map. The small, straight-stemmed projectile point is dated to the Early Ceramic period. This temporal association is based on subsurface projectile points recovered from the Recon John Shelter (Zier 1989:Figure 32). A gully through the site shows a potential depth of 50 cm for cultural deposits over this portion of the site. A 1 m x 1 m test unit was excavated at the site by CA and the results reported in Zier et al. (1996). This test excavation revealed a shallowly buried cultural horizon. Diagnostic artifacts collected during the two recording sessions suggest that the site is affiliated with a Late Archaic- Middle Ceramic periods occupation. The site has a good potential to yield significant information on the following research themes as defined by Zier et al. (1997a, 1997b): settlement patterns, prehistoric economies, chronology and cultural relationships, and perhaps horticulture; therefore, it is recommended as eligible for nomination to the NRHP.

Management Recommendation

Avoid and protect. Conduct limited excavation to stabilize erosion that is affecting the site.

5EP2187.1 (Gale Ditch)

This historic irrigation ditch was recorded by Butler (1990) and later rerecorded by CA in 1993 and reported in Zier et al. (1996). The site was located correctly on the U.S.G.S. map, and a rebar datum with stamped a site tag was placed at the concrete weir where the ditch enters Fort Carson. Zier, et al. (1996) had identified the Gale Ditch as a significant resource contributing to the homesteading theme. The site is in good condition, but an in-depth literature search may establish the extent of modifications to the ditch, and this would determine whether this section of ditch is contributing. Even without that specific documentation, it is recommended that the site is eligible for nomination to the NRHP.

Management Recommendation

Avoid, protect, and conduct literature research into possible modifications of the portions of the ditch within the FCMR.

Fremont County

5FN87

This site was plotted correctly on the U.S.G.S. quadrangle map. A rebar datum with stamped site tag was established at the site. The rock art was examined and rock art panel forms were completed. The site appears to have changed little since it was first recorded by GRC in 1980 and reported in Alexander et al. (1982). No evidence for recent disturbances was visible in the shelter. An upright rock, which partitions the interior of the shelter, is still visible along the wall. A trowel probe under the shelter indicated at least 40 cm of sediments. The site appears in good condition, partially the result of its remote location. Diagnostic artifacts were not recovered from the site during either of the recording sessions, and the temporal affiliation is the general prehistoric period. The site is recommended as eligible for nomination to the NRHP based on the research themes of prehistoric economies, paleoclimates, architecture, chronology and cultural relationships, and rock art (Zier et al.

1997a, 1997b). This site has also been identified as a possible traditional cultural property because of the associated rock art (Jones et al. 1998:166).

Management Recommendation

Avoid and protect. Thoroughly document rock art.

5FN179

The site was located correctly on the U.S.G.S. quadrangle map, and the original rebar datum was located. A stamped site tag was added to the existing rebar. The site was originally recorded by GRC in 1979 and reported in Alexander et al. (1982) who describe the site as multiple-component with occupations perhaps occurring during the Late Archaic and the Middle-Late Ceramic periods. Although the site was not reported to have been tested, a 1 m x 1 m excavation which resembles an archeological test unit is visible on the surface. Only one artifact, a chert flake, was identified at the site during the revisit. The site is located on a remnant Pleistocene terrace. Sediments accumulated at the site are colluvial with higher locations undergoing deflation as opposed to aggradation. There is little potential for significant subsurface deposits in this particular geomorphic situation. Since artifacts are not present on the surface, it is concluded that the original collection, analysis, recording, and mapping have exhausted the research potential of site. The site is not recommended as eligible for nomination to the NRHP.

Management Recommendations

No further archeological work is recommended at this site.

5FN180

The site was correctly plotted on the U.S.G.S. quadrangle map. The three mapping rebar datums identified on the site map were all relocated. A stamped site tag was tied to Datum A. Ninety-seven of the documented 497 artifacts had been collected when the site was originally recorded by GRC in 1979 and reported in Alexander et al. (1982). Pleistocene gravels blanket the terrace surface which suggests a low potential for subsurface deposits. A shovel test was excavated at the site to determine subsurface potential. The sediments reached a maximum depth of 31 cm with decomposing bedrock beginning at 28 cm. No artifacts were recovered in this test. A single projectile point was collected during the reevaluation. This point has an expanding stem, a concave base, and is manufactured from dark-brown dendritic chert. Artifact analysis of the diagnostic artifacts collected from the two recording sessions suggest an Early-Middle Ceramic periods occupation (Appendix II). The research potential of the site has been exhausted through the extensive surface collection strategy of the original recorders and the artifact analysis from the 1997 reevaluation; therefore, the site is not recommended as eligible for nomination to the NRHP. This site is identified as a possible traditional cultural property by Jones et al. (1998:166). This is based, in the authors opinion, on the sites Late Ceramic period affiliation.

Management Recommendation

No further archeological work is recommended at this site.

5FN181

The site was mapped correctly on the U.S.G.S. quadrangle map. Datum A and B were relocated and GPS positions taken on them. Datum C, however, is on private land and was not investigated. A stamped site tag was tied to the original rebar datum that remained at Datum A. The site is in relatively good condition but has suffered the effects of bioturbation mostly from prairie dogs. The site was inventoried by GRC in 1979 and reported in Alexander et al. (1982); it was tested in 1982, and the results are reported in Hartley et al. (1983). Test results firmly demonstrated the presence of subsurface deposits including diagnostic projectile points that date from the Late Archaic through to the Middle Ceramic periods (Hartley et al. 1983:73-79). The authors, however, suggest mixing of sediments. The quantity of subsurface artifacts, including diagnostic projectile points, along with the potential depth of cultural deposits is deemed to have sufficiently established the potential to yield significant buried deposits. The prehistoric component has the potential to yield information on the research themes of prehistoric economies, settlement patterns, chronology and cultural relationships, and possibly on horticulture as defined by Zier et al. (1997a, 1997b). Additionally, the historic component has not been sufficiently investigated. Historic artifacts such as pressed-glass fragments, sun-colored amethyst glass fragments, and square-cut nails suggest the site dates to the turn-of-century. A single historic ceramic with a maker's mark was collected from the site, but the mark could not be conclusively dated. The original patent on this property was by John McClure in 1875. McClure, a merchant in Cañon City, built a large hotel called the McClure House along Red Creek at the community of Glendale. Glendale was established about 1873 as a station on the stage line. There is a good possibility that this site may yield significant information on the early homesteading in the Fort Carson area as defined by Zier et al. (1997a, 1997b). It is documented that Beaver Creek witnessed a few early homesteaders to the area (Whittemore 1967).

Management Recommendations

Avoid and protect. Complete an in-depth records search on the historic component at the site.

5FN295

This site is a small rock shelter with two wall segments of undetermined temporal origin. The site was recorded by GRC in 1979 and later reported in Alexander et al. (1982). It was correctly plotted on the U.S.G.S. quadrangle map. A rebar datum with a stamped site tag was placed at the site. Sediment deposition within the shelter is shallow, ranging from bedrock exposure to a few centimeters of residuum. A trowel test was excavated to a maximum depth of 28 cm. Prehistoric artifacts have never been found in association with the wall segments. The site offers limited research potential due to the lack of associated artifacts and the shallow sediment depth within the shelter. The site is recommended as not eligible for nomination to the NRHP.

Management Recommendation

No further archeological work is recommended at this site.

5FN497

The site was located accurately on the U.S.G.S. quadrangle map, and a new rebar datum with a stamped site tag was set in at the southeast corner of a corral. Originally, the site was recorded in 1979 by GRC with two site numbers: 5FN496, the historic component; and 5FN497, the prehistoric component. Both are included in the report by Alexander et al. (1982). The prehistoric component, site 5FN497, was the only portion of the site which we were to reevaluate. The site includes less than twenty flaked-lithic artifacts and two flaked-lithic tools (nondiagnostic). The original recorders collected 43 artifacts from the site. However, no diagnostic artifacts have been collected from the site during either recording, and its temporal affiliation is the general prehistoric period. A shovel test was placed in the area of a light artifact concentration. No artifacts were retrieved, and sediment depth was 20 cm. The site is very heavily disturbed, and there is little potential for significant *in situ* subsurface deposits. The site has been mapped, recorded, and the collected artifacts analyzed; these efforts have exhausted the research potential. The site is not recommended as eligible for nomination to the NRHP.

Management Recommendation

No further archeological work is recommended at this site.

5FN504

The site was plotted correctly on the U.S.G.S. quadrangle map. A rebar datum with a stamped site tag was placed at the site. The site has changed little since its initial recording in 1980 by GRC. It is reported in Alexander et al. (1982). The site consists of a sheltered area beneath a cluster of large boulders. A single dry-lain stone wall between two of the boulders forms a small enclosure. A tabular piece of sandstone within the boulder enclosure was previously documented to be a slab metate. The wall found under the boulder shelter is the only conclusive evidence for cultural use, and it is of unknown temporal origin. The metate is, at best, dubious. A shovel test revealed shallow (18 cm), loose sand in an area with the best probability for sediment depth. The site is not determined to have significant research potential beyond the recording that it has received. Therefore, the site is recommended as not eligible for nomination to the NRHP.

Management Recommendations

No further archeological work is recommended at this site.

5FN505

The site was located correctly on the U.S.G.S. quadrangle map. A rebar datum with a stamped site tag was established at the site. The site appears to have changed little since the original recording. The site was recorded in 1980 by GRC and is reported in Alexander et al. (1982). It was later test excavated by this same company (Hartley et al. 1983). Although the excavators indicate that 25 % of the shelter was excavated, it would appear that the actual percentage is closer to 33. The deposits are shallow, and no obvious signs of surface disturbance are visible. A hearth feature was encountered during testing in 1982

(Hartley et al. 1983). The hearth rested on bedrock at a depth of 30 cm below surface. The remainder of the deposits within the shelter appear to retain cultural integrity with no obvious signs of surface disturbance. Two projectile points recovered from test excavations were used to determine that the site was affiliated with the Early Ceramic period (Hartley et al. 1983). The three metates originally recorded were relocated. The site is recommended as eligible for nomination to the NRHP because it has the potential to yield information on the research themes of chronology and cultural relationships, prehistoric economics, paleoclimates, and settlement patterns as defined by Zier et al. (1997a, 1997b).

Management Recommendation

Avoid and protect.

Pueblo County

5PE14

5PE14 is the Turkey Creek Rock Art District. This site consists of a parcel of land approximately 0.8 km wide and 2.4 km long along both sides of Turkey Creek Canyon and within the MPRC. On February 12, 1975, this parcel, labeled with Smithsonian site number 5PE14, was nominated to the NRHP for its "Indian Petroglyphs and Pictographs" (Nicholson 1975). Subsequently, on May 3, 1976 5PE14 was officially entered in the NRHP. Two areas, Areas A and B, were identified (Nicholson 1975). At the time of nomination and acceptance, the district limits had not been fully inventoried for cultural resources prior to its nomination. Therefore, only two rock art areas were identified. These areas, probably sites 5PE58 (Site R 60 [C 452]) and 5PE62 (Site R 65 [C 459]), were known on the basis of earlier work (Renaud 1930;1936) .

Subsequently the entire limits of 5PE14 have been subjected to intensive cultural inventory (Alexander et al. 1982; Zier and Kalasz 1985; Van Ness et al. 1990), and some sites within the boundaries have been test excavated (Zier and Kalasz 1985; Van Ness et al. 1990). These inventories indicate that many archeological resources are located within the district limits, and most sites do not contain rock art. Moreover, many rock art sites are present at Fort Carson but lay beyond the district limits.

Five sites within the Turkey Creek Rock Art District were revisited during the 1997 reevaluation project. The sites reevaluated include the following: 5PE60, 5PE62, 5PE926, 5PE58, and 5PE94. Two of these, 5PE62 and 5PE58, contain rock art. Site 5PE926 is an open architectural site, and 5PE94 was not relocated. For more information on the individual sites subsumed within the boundary of 5PE14, the reader is referred to the individual site discussions presented later in this chapter. It should be noted, however, that sites 5PE93, 5PE832, 5PE830, 5PE875, and 5PE95 are within the Turkey Creek Rock Art District and are reported to contain rock art but were not included on the list of sites for reevaluation. Finally, other sites with rock art are present within the FCMR, and several of these are in Turkey Creek Canyon, but are outside of the Turkey Creek Canyon District boundaries.

Management Recommendation

The utility of a single site number designating an arbitrary geographical district should be reevaluated, especially in light of the data obtained through cultural resource projects over the past twenty years in Fort Carson. It is suggested that perhaps the NRHP designation of 5PE14 be discontinued, and district nominations for individual site types as noncontiguous geographical districts (Zier et al. 1997) within the greater FCMR be implemented instead.

5PE52

This site was not relocated. The site was originally recorded in 1964 by the University of Denver (DU). The site form mentions that the site is a rock shelter but does not provide a cultural affiliation or even a description. Locational information for the site was minimal at best. Based on the location map from the original site form (sketch of the U.S.G.S. 7.5' quadrangle map), a small canyon area south of Sullivan Canyon was inspected. Portions of the escarpment on either side of the mouth of the canyon were also examined. The location information says that the rock shelter is above the "Old Clark homestead." The exact location of the homestead, however, is unknown. The search for this site was conducted with four archeologists spaced 20 m apart covering both sides of the canyon. The search for the site was discontinued after two hours.

Management Recommendation

No further archeological work is recommended at this site.

5PE54

This site was not relocated. The site was originally recorded in 1965 by DU. The locational data on the one-page site form were used to try and locate the site. The description led us to an area on the west side of Turkey Creek. A large area was inspected and a few flaked-lithic artifacts were found on the ridge slope and one artifact was found on the flood plain where vegetation was more dense. Although ceramics were reported on the original site form in the area where plowing had occurred, ceramics were not located during the site reevaluation. The original site form, however, mentioned that the site is affiliated with the Ceramic period. Based on the lack of ceramics noted during the 1997 reevaluation and the limited locational information, we were unable to establish the location of 5PE54. A more recently recorded site, 5PE916, is located just south where 5PE54 was supposed to have been located. It is probable, therefore, that the few artifacts observed in 1997 are related to site 5PE916, which is recorded as a sparse flaked-lithic scatter of unknown cultural affiliation. Site 5PE916 was recorded by CA in 1988 and reported in Van Ness et al. (1990), and it was recommended as not eligible for nomination to the NRHP.

Management Recommendation

No further archeological work is recommended at this site.

5PE55

This site was not located. The site was originally recorded in 1965 by DU as a Ceramic period site. Locational information on the one-page site form was used to try and locate the site. The description led us to the area of an elevated terrace on the east side of Turkey Creek. We located a flaked-lithic artifact scatter with a light scatter of historic glass and a concrete slab. We also located a fallen PVC datum. After checking the ArcInfo mylar overlay with the plotted locations of sites which was supplied to us by Marilyn Mueller of DECAM, it was determined that the datum belonged to site 5PE866. 5PE866 was recorded in 1988 by CA and reported in Van Ness et al. (1990) who recommended this multiple-component Early Ceramic period and historic site as not eligible for nomination to the NRHP. It is possible that 5PE54 and 5PE866 are the same site; although, the limited information on site 5PE55 makes for a tentative association.

Management Recommendation

No further archeological work is recommended at this site.

5PE56 (Avery Ranch)

This site was correctly located on the U.S.G.S. quadrangle map. A rebar datum with a stamped sit tag was placed at the site. The site was originally noted by DU in 1931 (Renaud 1931a). Over the past three decades this Middle Ceramic period site has been the subject of numerous subsurface tests and larger-scale excavations (Ireland 1968; Watts 1971, 1975; Withers 1964; Zier and Kalasz 1985). Most recently, the intact portion of the site was excavated and these efforts were deemed, at that time, to have mitigated the military impacts to the surviving western portion of the site (Zier et al. 1988:270). Mitigative efforts have sufficiently exhausted the research potential of the site based on prior impacts, previous investigations, and the mitigation of the remaining structural features at the site (Zier et al. 1988).

Management Recommendation

No further archeological work is recommended at this site.

5PE57

This site was originally recorded by DU in 1965. It was described as an artifact scatter and a large stone circle located approximately 200 ft. northwest of the bend of old Lytle Road. Although the ground was heavily vegetated during the reevaluation, ground visibility was adequate, and any stone present would have been apparent to investigators. Two shovel tests were excavated in the general area identified as the location of 5PE57. No subsurface artifacts were recovered. Upon examination of the broader area (200 m x 250 m) north and west of Lytle Road, we discovered a fallen piece of PVC in an area of flaked-lithic artifacts. The Arc/Info mylar overlay indicated that site 5PE921 was recorded at this location. This scatter was recorded by CA in 1988 and reported in Van Ness et al. (1990) where it is described as a flaked-lithic scatter and recommended as not eligible for nomination to the NRHP. Their description compares well with the scatter recognized on

the ground by FLC. A projectile point collected by FLC in 1997 is cataloged as having been collected from 5PE921 (Appendix II). No other archeological sites were identified in the broad area approximating the incomplete description of 5PE57. One possible explanation for 5PE57 is that the original informants were referring to Ocean Vista, 5PE868, which is located on a finger ridge about 200 m from the sharp curve in Lytle Road. A second possibility is that ground disturbing activities since the mid-1960s have destroyed the stone circle. It appears that the entire area may have been plowed following acquisition by the military.

Management Recommendation

No further archeological work is recommended at this site.

5PE58 (Circle Site)

This rock art site was easily located using the current plot of the site on the U.S.G.S. quadrangle map. A rebar datum with a stamped site tag was placed directly in front of the rock art panels. The site had been originally discovered by Renaud (Renaud 1930; 1936) and given identification number R 60 (C 452). The site was recorded on Colorado Cultural Resource Forms in 1988 by CA and reported in Van Ness et al. (1990). Changes to the rock art panel by FLC (Figure 6.1, 6.2, 6.3, 6.4, 6.5, and 6.6) were added to the scaled drawings done in 1988 by CA. Comparing Renaud's sketch to the new elements (Figure 6.1, 6.2, and 6.3:Panels 2, 6, and 7), added in 1997, indicates that some of the additions we made to the drawings of CA in 1988 were visible when Renaud documented the site, and a few elements were added which were not on Renaud's drawings (Figure 6.4, 6.5, and 6.6:Panels 3, 5, and 8). A very small petroglyph panel, Panel 9 (Figure 6.7), was added to the site form. Due to the natural weathering of the rock, the elements display various stages of weathering, which will continue to fade. Proper lighting on the panels is imperative for complete documentation. There have been no temporally diagnostic artifacts recovered from this site, and the temporal association is inconclusive, although it is generally suspected that the rock art in Turkey Creek Canyon is post-Archaic. A trowel test, 15 cm x 20 cm, was placed under the overhang beneath Panel 2. Charcoal was recovered at 15 cm and at 27 cm below the ground surface. The base of the trowel test was 33 cm. The site is determined to be significant under the themes of rock art, paleoclimates, chronology and cultural relationships, prehistoric economies, and settlement patterns as defined by Zier et al. (1997a, 1997b). The research topics included in the rock art theme include stylistic variability (cultural and temporal), and the potential for relative or chronometric dating (Zier et al. 1997). Based on the presence of rock art, this site is also identified as a possible traditional cultural property (Jones et al. 1998:166).

Management Recommendation

Avoid and protect site. Thoroughly document the rock art and test for associated cultural deposits in alcove. Over the course of the reevaluation project it was conclusively determined that site 5PE163 is actually 5PE58. This is based on identical sketches of rock

5PE58
CA 223
Panel 2
page 2 of 2
A. Harrison
7/5/88
Revised 1997

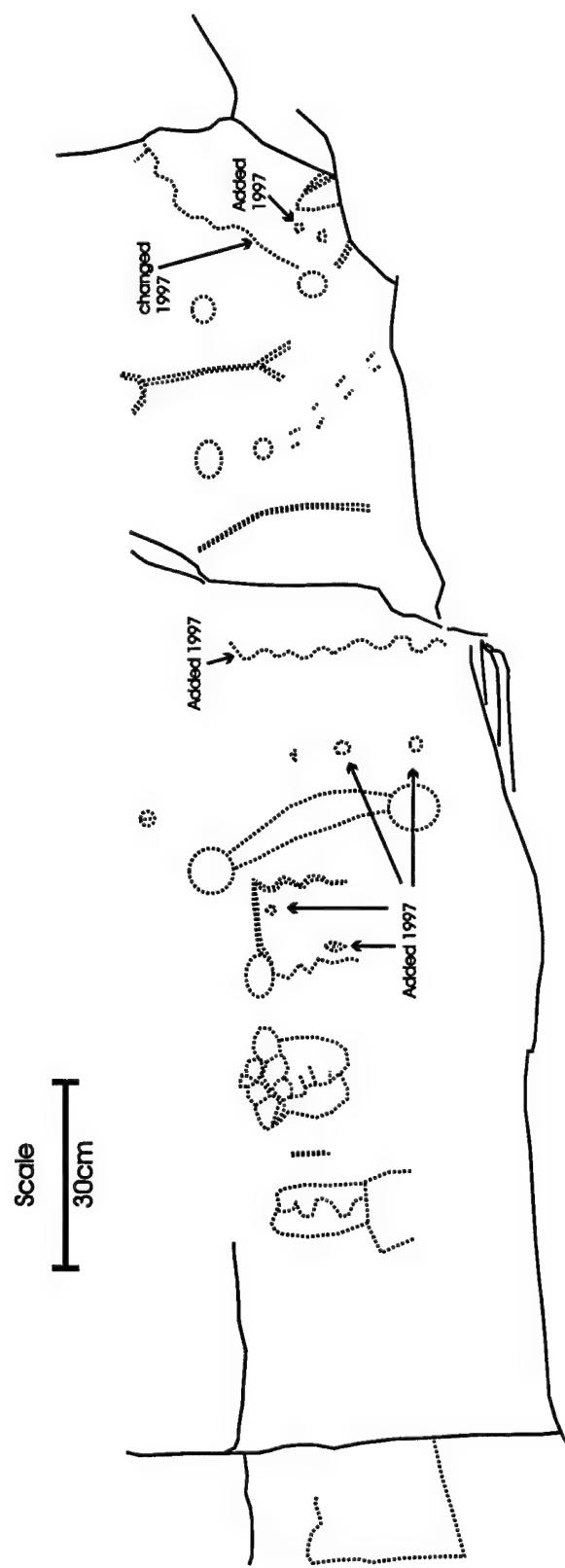


Figure 6.1. Rock Art Panel 2, With 1997 revisions.

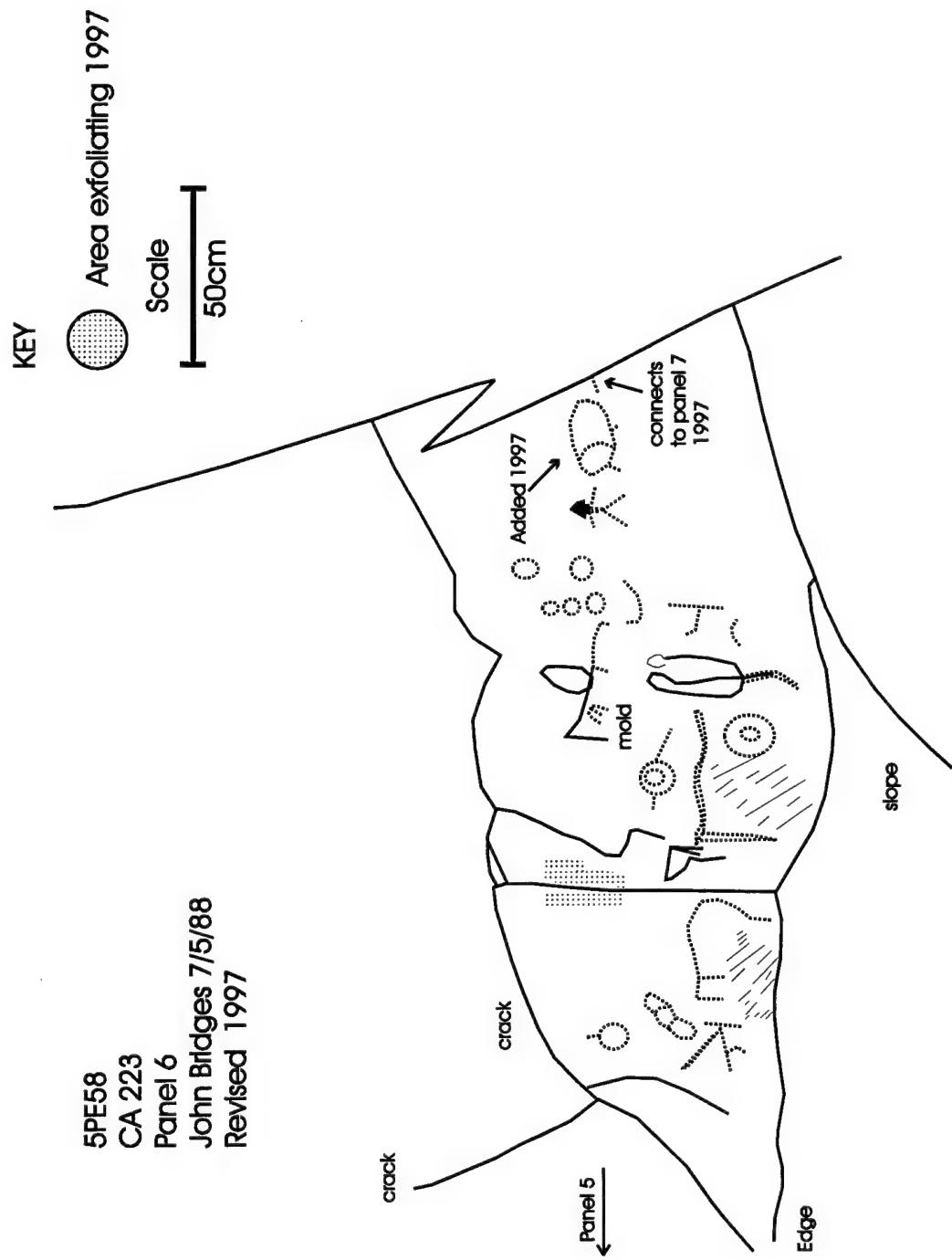


Figure 6.2. Rock Art Panel 6, 5PE58 With 1997 Revision.

5PE58
CA 223
Panel 7
A Harrison 7/5/88
Revised 1997

VV
↑
Added
1997

Scale
1cm = 10cm

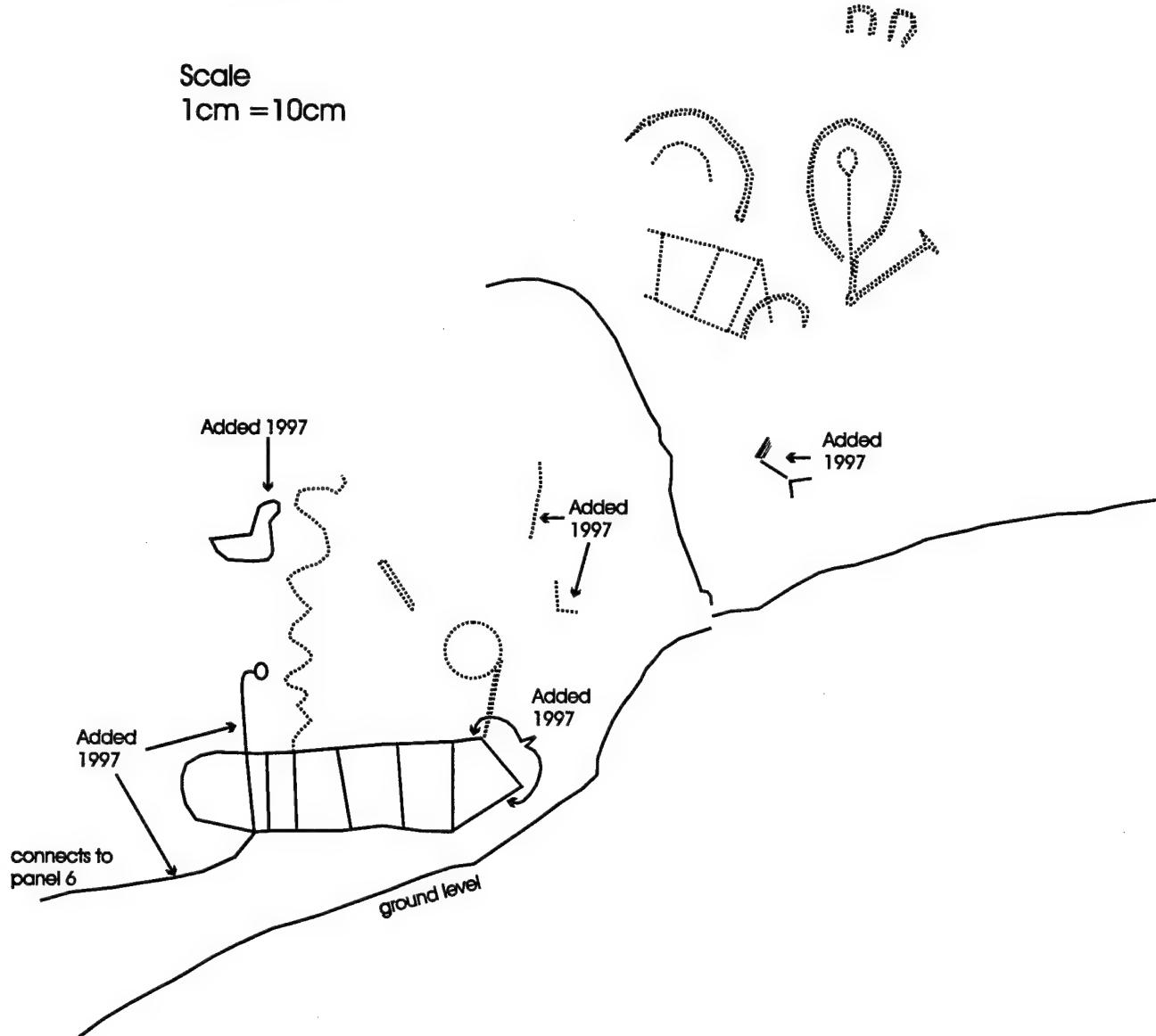


Figure 6.3. Rock Art Panel 7, 5PE68, With Revisions.

5PE58
CA 223
Panel 3
A. Harrison 7/5/88
Revised 1997

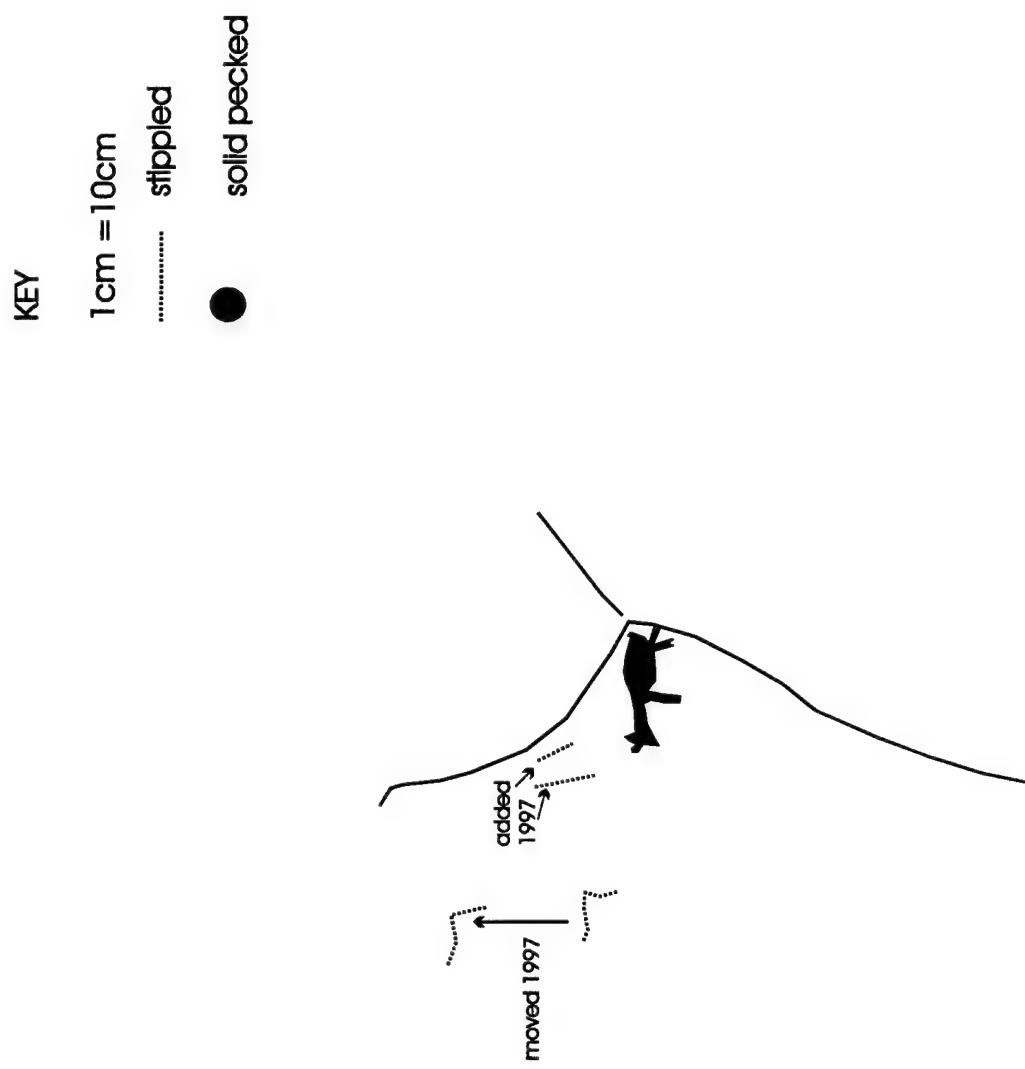


Figure 6.4. Rock Art Panel 3, 5PE58, With 1997 Revisions.

5PE58
CA 223
Panel 5
John Bridges 7/5/88
Revised 1997

KEY  **exfoliated**

A hand-drawn geological sketch of a rock face. The sketch includes the following labels and features:

- Scale 50cm**: A scale bar indicating 50 centimeters.
- crack**: A label pointing to a vertical fissure in the rock face.
- Edge**: Labels pointing to the base of the rock face.
- Panel 6**: An arrow pointing upwards, labeled "Panel 6".
- added 1997**: A label with an arrow pointing to a series of small, irregularly shaped circles (dotted patterns) on the upper right side of the face.
- moved 1997**: A label with an arrow pointing to a series of small, irregularly shaped circles (dotted patterns) on the middle left side of the face.
- Edge**: A label pointing to the base of the rock face on the right side.

Figure 6.5. Rock Art Panel 5, SPE58, With Revisions.

5PE58
CA223
Panel 8
John Bridges 7/5/88
Revised 1997

Scale

50cm

Panel 7
approximately 20m

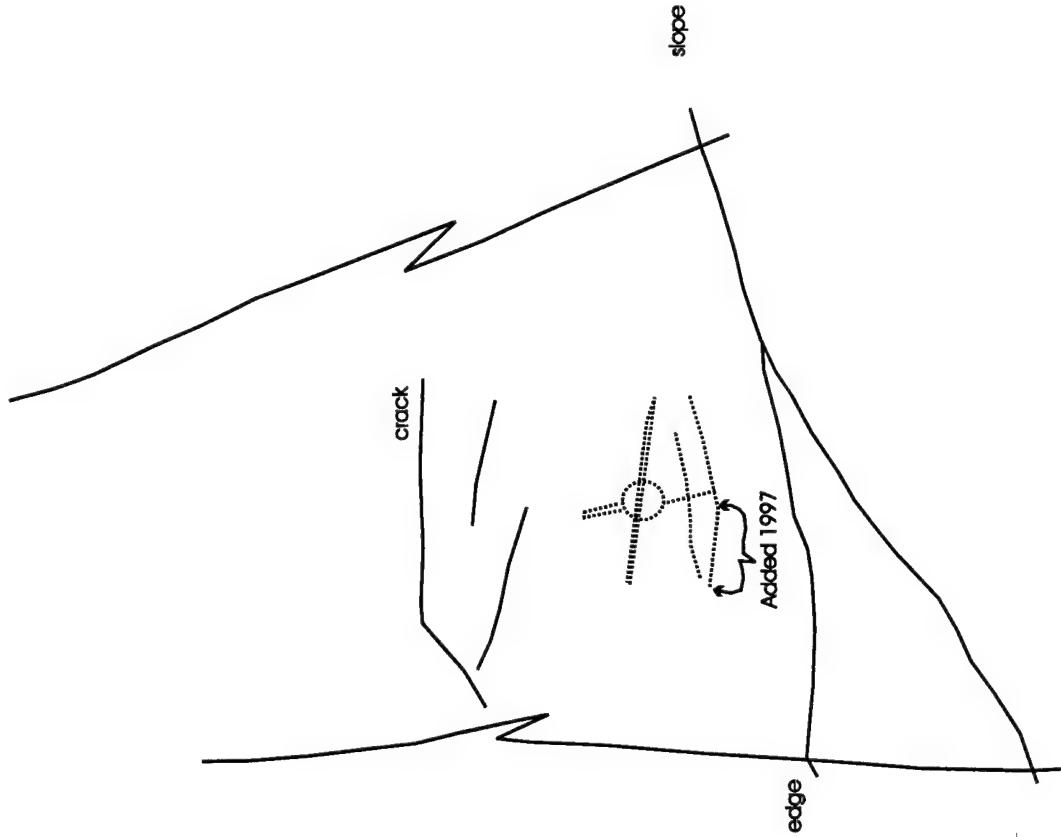
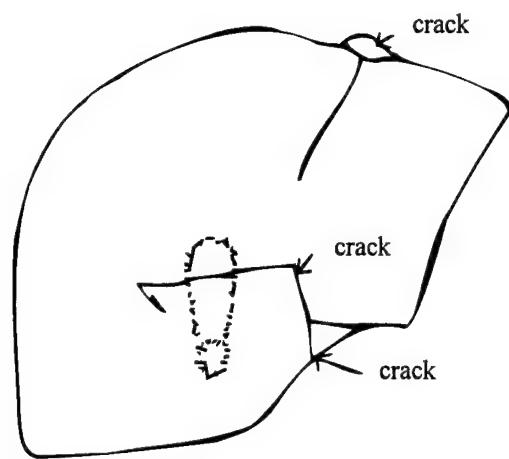


Figure 6.6. Rock Art Panel 8, 5PE58, With Revisions.



0 10
scale (cm)

M. Connor
B. Schriever
8/17/97

ground surface

Figure 6.7. Scaled Drawing of Rock Art Panel 9, SPE58.

art described as site 5PE163. The location of and actual existence of site 5PE163 is therefore incorrect.

5PE60

The site was located correctly on the U.S.G.S. quadrangle map; the UTM designations were adjusted to the north by 50 m. A rebar datum with a stamped site tag was placed west of the stone alignment approximately in the middle between the alignment and the canyon rim. This site, as is the case with similar open structural sites in the Turkey Creek area, has been reported on by many researchers over the past six decades (Renaud 1930, 1931a, 1932; Watts 1971; Withers 1964), but was never fully recorded until 1984 when it was recorded by CA and reported in Zier and Kalasz (1985). The site map is accurate, but stone circles and semi-circular stone alignments appear more defined in 1997 than in 1984. These circular and semi-circular alignments have mature piñon/juniper trees growing within them. As Zier noted in the site form, this tendency obscures the interpretation of the overall alignment. A single cord-marked ceramic, which was mapped with a compass, was the only diagnostic artifact observed during the 1997 reevaluation. This site may be multi-component, but the primary occupation is suggested to be the Middle Ceramic period because of the cord-marked ceramics, and similar stone alignments associated with dated Middle Ceramic sites in the Turkey Canyon area (Kalasz et al. 1993; Zier and Kalasz 1985; Zier et al. 1988). It is determined that 5PE60 exhibits cultural alignments that do not definitely correlate to prehistoric or historic precedence. The site has the potential to yield additional information under the themes of settlement patterns, chronology and cultural relationships, architecture, horticulture, and prehistoric economies as defined in the by Zier et al. (1997a, 1997b). The semi-circular features are unusual, and testing may establish temporal association and function. The site is recommended as eligible for nomination to the NRHP.

Management Recommendation

Avoid and protect. The site should be tested to determine origin of semi-circular and circular features.

5PE62 (Renaud's Shelter)

This rock shelter and rock art site is commonly referred to as Renaud's Shelter. It was first reported by Renaud (1930; 1947) and was identified as Site R 65 (C 459). The site was fully recorded in 1988 by CA (Van Ness et al. 1990). The plotted location of this site on the U.S.G.S. quadrangle map was approximately correct, and slight adjustments were made to the map to better reflect its location. A rebar datum with a stamped site tag was placed at the original datum location under the dripline. Results of reevaluation showed that this sheltered site with rock art is in good condition and all panels remain. Limited subsurface testing in 1988 (Van Ness et al. 1990) recovered artifacts and charcoal to a depth of 80-90 cm below the surface. Temporal affiliation has not been established except that the rock art is generally thought to be post-Archaic. The site is recommended as eligible for nomination to the NRHP under several themes developed for Fort Carson (Zier et al. 1997a,

1997b). These themes include chronology and cultural relationships, prehistoric economies, paleoclimates, settlement patterns, and rock art. The results of shovel testing (Van Ness et al. 1990) clearly established subsurface potential of the site. According to Jones et al. (1998:166), this site is one that may assist in the identification of traditional cultural properties.

Management Recommendation

Avoid and protect. Thoroughly document rock art panels, and conduct limited testing to more accurately define the site boundaries in order to effectively manage the site.

5PE63

This site was originally recorded in 1963 by DU and reported in Withers (1964). It was rerecorded by CA in 1986, reported in Zier et al. (1987), and subsequently tested by this same organization (Kalasz et al. 1993). Subsurface testing (Kalasz et al. 1993) has established the presence of subsurface cultural deposits, although no features were identified in these tests. The temporal affiliation of the site was determined to be the Middle Ceramic period. It was revisited again by CA and reported in Zier et al. (1996). The site was located correctly on the U.S.G.S. quadrangle map. A new rebar datum was placed near the center of the site. A few flakes were noted on the surface, while one anthill contained a plethora of thinning flakes. Results of the 1997 investigation confirmed that the site is in good condition, and the potential for subsurface deposits is good; therefore, the site is recommended as eligible for nomination to the NRHP because it has the potential to yield significant information under the themes of prehistoric economies, settlement patterns, chronology, and cultural relationships, horticulture, and architecture (Zier et al. 1997a, 1997b).

Management Recommendation

Avoid and protect.

5PE64

The site was located correctly on the U.S.G.S. quadrangle map. The site is a historic homestead that is currently fenced for protection. The rebar at Datum A was located and a stamped site tag was attached to the rebar. The site was originally reported to be the location of Bent's Fort (Hurd 1960). DU originally recorded the site, and it was reported as such in Withers (1964). The site has changed very little since the last recording by CA in 1984 when it was also tested (Zier and Kalasz 1985). Based on testing and historical documentation, the site was recommended as eligible for nomination to the NRHP (Zier and Kalasz 1985). Although few artifacts are currently visible, these tests showed a potential for additional archeological information on Research Theme 1[(Homesteading and Agriculture) Zier et al. 1997b]. Site testing in 1984 recovered subsurface cultural deposits, but nothing definitive for dating purposes other than artifacts. The site is recommended as eligible for nomination to the NRHP.

Management Recommendation

Avoid and protect.

SPE93 (Map Site)

This site was located correctly on the U.S.G.S. quadrangle map and all datums were located during the 1997 reevaluation. The site was originally recorded by DU in 1964 and later rerecorded by CA in 1988 (Van Ness et al. 1990). The site consists of a very sparse, open flaked-lithic scatter of mostly green orthoquartzite flakes and cores, representing primary-lithic reduction, eighteen nonportable groundstone and a single rock art panel. A Reed-Washita point, collected in 1988, suggested a Middle Ceramic period to d occupation for the site. The eighteen nonportable groundstone artifacts originally defined at the site were relocated, but it is doubtful that most are artifacts. The colluvial sediments and steep slope angle do not lend themselves for significant *in situ* buried deposits. If not for the rock art panel, the site would not be recommended as eligible for nomination to the NRHP. However, the rock art panel is distinctive, unusual, and should be protected. This panel is an extremely small feature compared to the overall site size (16.8 acres). We recommend that the site area be reexamined and reinventoried, and site boundaries redefined by current standards (Dean 1992). Otherwise, the site as defined by CA is recommended as eligible for nomination to the NRHP based solely on the potential of the rock art panel to yield information important to the research theme of rock art as defined in Zier et al. (1997a, 1997b). This site has been identified as a possible traditional cultural property (Jones et al. 1998:166).

Management Recommendation

Avoid and protect. Further documentation is recommended to redefine site boundaries in accordance with Dean (1992).

SPE94

A general examination of the area identified as 5PE94 was conducted. Information on the 1965 DU site form gave no indication of the site type we were to investigate except for the cryptic phrase "On Register: Indian Petroglyphs & Pictographs". In our investigations we concentrated on looking for either rock art, stone circles, or stone walls because these were the focus of early researchers. We found the Dockum homesite and looked in the broad area south of the homesite. We found a light flaked-lithic artifact scatter and a PVC pipe; probable datum for 5PE835 (Van Ness et al. 1990). In addition we noticed a rock art panel, most probably of historic origin. We recorded the rock art panel and took photographs. Two trowel tests were excavated; one directly beneath the rock art and one beneath the overhang 4 m south of the rock art panel. No artifacts were found in either test unit. Site forms were acquired for both sites 5PE95 and 5PE835. Neither had the rock art recorded. The rock art will be submitted as an addition to site 5PE95. Other than these two previously recorded sites, we found no evidence for a separate site in the vicinity where 5PE94 was supposed to

be located. It should be noted however, that this site is recognized by Jones et al. (1998:166) as one that may assist in the identification of traditional cultural properties.

Management Recommendation

No further archeological work is recommended at this site.

5PE163

This site is actually 5PE58. The rock art illustrations on the site form match those at 5PE58. The area identified as the location of 5PE163 was thoroughly investigated, and no rock art was identified. The site was recorded in 1972 by the Colorado Archaeological Society (CAS).

Management Recommendation

Use of this site number should be discontinued as it is the same site as 5PE58. The location of 5PE163 should be removed from the base maps.

SPE317

This site was located with some difficulty and its location was slightly adjusted from that on the U.S.G.S. quadrangle map. The site consists of an amorphous circular stone alignment. A second faint circle was added to the map in 1997. Some of the rocks have been displaced by military traffic. The site was recorded by GRC in 1978, reported in Alexander et al. (1982) and later reevaluated by CA (Zier et al 1996). The site was remapped, and a rebar datum with a stamped site tag was placed at the site. The possibility of intact subsurface deposits is very low, and the site has been disturbed by vehicular traffic. The functional or temporal associations are not clear primarily because there are no artifacts associated with the site. The site is recommended as not eligible for nomination to the NRHP. Reevaluation forms were completed on the site and reported in Appendix D (Zier et al. 1996). These archeologists determined the site as not eligible for nomination to the NRHP as well (Zier et al. 1996: Table 3).

Management Recommendation

No further archeological work at this site is recommended at this site.

5PE319

This historic site was located accurately on the U.S.G.S. quadrangle map, and the features (1, 2) described in Carrillo et al. (1991) remain in good condition. However, reclamation efforts have removed most of the features and debris documented in the original recording by GRC in 1978 (Alexander et al. 1982). The documentation by Carrillo et al.(1991) changed the feature numbers from Feature (6) to Feature (1) and Feature (14) to Feature (2), and designated Feature 3 as the remainder of the site. A rebar datum with a stamped site tag was placed near Feature 1, the calcine kiln. Features 1 and 2 were reevaluated by Carrillo in 1988 and only Feature 1 was recommended as eligible for nomination to the NRHP because it contributes to the database in the areas of clay mining

and processing operations of the early 1900s (Carrillo et al. 1991). It contributes to the historic theme of mining and quarrying as defined by Zier et al. (1997a, 1997b).

Management Recommendation

Avoid and protect. Feature 1 should be fenced.

SPE320

This site, the Kansas-Colorado Railroad grade and associated features, was originally recorded by GRC in 1978 and reported in Alexander et al. (1982). The site was reevaluated in 1989 by CA who recommended the site as not eligible for nomination to the NRHP (Carrillo et al. 1991). The site area was easily located due to the proximity to the main road and the Stone City Study Area. A rebar datum with a stamped site tag was established at Feature 3. Feature 3 has been disturbed through military activities with only a portion of the foundation and a light artifact scatter remaining. Besides the reevaluation of Features 3 and 4, the remains of a trestle over the main drainage of Booth Gulch were also relocated. Features 1 and 2, documented by the original recorders of the site, were not found. When the site was reevaluated in 1988 these same two features were not relocated. The railroad grade, which comprises the remainder of the site, is visible in the immediate area. The documentation of the site, which includes the reevaluations, has exhausted the research potential of this site. The site is not recommended as eligible for nomination to the NRHP.

Management Recommendation

No further archeological work is recommended at this site.

SPE321

This site was located correctly on the map, but under the criterion of Dean (1992) we redefined site boundaries based on the spread of 72 m distance between the artifact scatter and the boulder rock art. SPE321 is limited to the boulder rock art while a new site form was completed for the artifact scatter (see 5PE2211 this chapter). The site is in good condition, except that the rock art is eroding through natural weathering (granular disintegration) and lichen growth. The site is easily accessed and is, therefore, in imminent danger from visitation and vehicular traffic. In addition, the effects of natural weathering are evident on the petroglyphs. All rock art panels identified by Alexander et al. (1982) were identified. The site was remapped, and a rebar datum with stamped site tag was placed near the middle of the site area. The temporal affiliation of the rock art is suspected to be post-Archaic, although there are no diagnostic artifacts associated with the rock art to support this assertion. It is recommended that this site is eligible for nomination to the NRHP under the rock art theme developed by Zier et al. (1997a, 1997b). Research topics include stylistic (temporal and cultural) variability, and potential chronometric as well as relative dates.

Management Recommendation

Avoid and protect. Thoroughly document the rock art.

SPE326

Site 5PE326 was correctly plotted on the U.S.G.S. quadrangle map, but its size was much bigger than indicated on the quadrangle map. The site was recorded by GRC in 1978 and reported in Alexander et al. (1982). This huge site contains five loci (A, B, C, D, and E), three overhangs (1, 2, and 3), and was superimposed over two historic sites (5PE325 and 5PE327). The orientation of the loci to the surrounding topography was slightly skewed, particularly Locus A which is actually south of Pierce Gulch rather than to the north. The site consists of spatially separate areas of artifacts and features that were recorded as part of the same site. Diagnostic artifacts recorded during the original inventory (projectile points and ceramics) suggested to the authors that the site was occupied over a broad temporal span from the Middle Archaic to late Prehistoric periods (Alexander et al. 1982). Two cord-marked ceramics, a drill, and a biface were collected from Locus A in 1997 (Appendix II).

Each individual locus or overhang was reevaluated. The open artifact scatters (A, B, C, D, and E) lack features and have little potential to yield significant *in situ* buried artifacts and features. These areas lack sufficient sediment depth for archeological deposits, and previous impacts (both military and natural) have compromised the site's integrity. Only Overhang 1 has the potential for buried cultural materials. This conclusion is based on the results of a shovel test excavated in the overhang to determine sediment depth. Charcoal mottling was noted at a depth of 28-46 cm below the surface. A rebar datum with a stamped site tag was placed within Overhang 1. Feature 2 within Overhang 3 appears to be of military origin. Military refuse is found within the shelter and the cottonwood branches resting on the feature are recent. Feature 1 and the possible petroglyph may well be the result of water collecting on the sandstone from the dripline directly above the sandstone. Therefore, only Overhang 1 is eligible for nomination to the NRHP under the research themes of chronology and cultural relationships, settlement patterns, prehistoric economies, and paleoclimates as defined by Zier et al. (1997a, 1997b). Previous collections conducted at the time the site was originally recorded and the recent reevaluation have exhausted the research potential of the other portions of the site. It should be noted, that based on the possible rock art previously identified at this site, this site is recognized (Jones et al. 1998:166) as one which may assist in the identification of traditional cultural properties.

Management Recommendation

Avoid and protect that portion of the site identified as Overhang 1, and perhaps redefine the site boundaries to accord with Dean et al. (1992). The two historic sites, 5PE325 and 5PE327, within the boundaries of 5PE326, should be reevaluated.

SPE328

This site was not located. The area where the site is plotted on the U.S.G.S. quadrangle map appears to be correct in terms of its physical relationship to site 5PE326. Site 5PE328 was originally recorded as having flaked-lithics artifacts, groundstone, and ceramics when recorded in 1978 by GRC and reported in Alexander et al. (1982). These authors conclude that the site was multiple-component and was occupied during the Late

Archaic, Early and Middle Ceramic periods. The site has been damaged through vehicular traffic to the point where it no longer exists; therefore, the site is not recommended as eligible for nomination to the NRHP.

Management Recommendation

No further archeological work is recommended at this site.

5PE331

This historic structural site has been completely destroyed by land-clearing activities. The site was originally recorded in 1978 by GRC as the remains of a concrete block structure foundation and associated trash scatter, and it was reported in Alexander et al. (1982). The historic foundation noted in the original site form is no longer present. At the time of the site revisit in 1997, a light scatter of artifacts, including a dozen pieces of clear glass, a few pieces of miscellaneous metal, one indeterminate tin can, and concrete block fragments similar to those described on the original site form, were noted in the general site location. A single shovel test in a small mound surrounded by a light artifact scatter was used to determine if the mound represents the filled-in foundation of Feature 1. The shovel test went to a depth of 80 cm with no visible signs of a foundation. The original site description mentions that site is in or near a piñon/juniper grove. There are very few trees in the area at present. Piles of bulldozer-created mounds of tree limbs and sediments were observed in the vicinity of the plotted location of the site. A few red brick fragments were noted 150 m north of scatter. No new site form was filled out and no datum was established. The site is recommended as not eligible for nomination to the NRHP.

Management Recommendation

No further archeological work is recommended at this site.

5PE336

This site was located correctly on the U.S.G.S. quadrangle map, and a rebar datum with a stamped site tag was placed at the site. The site consists of a small rock shelter with a dry-laid stone wall and a light artifact scatter beyond the limits of the shelter. The site was originally recorded by GRC in 1978 and reported in Alexander et al. (1982) who place the site occupation during the Middle Ceramic period because of the discovery of five cord-marked ceramics. All artifacts originally documented at the site were collected during the original recording. Two nondiagnostic flaked-lithic artifacts were noted during the reevaluation. No prehistoric artifacts were ever recorded within the shelter proper. A trowel test in the shelter indicated that the shelter has limited sediment potential. The original site form indicates that plastic spoons, C-ration cans, charcoal, and recent military rifle casings were noted at the site and within the shelter. It is possible, therefore, that the wall may have been constructed by military personnel. Mapping and site recording have sufficiently exhausted the research potential of the site. The site is not recommended as eligible for nomination to the NRHP.

Management Recommendation

No further archeological work is recommended at this site.

SPE338

The site was plotted correctly on the U.S.G.S. quadrangle map, and a rebar datum with a stamped site tag was placed next to the large boulder near the center of the site. The site was originally recorded by GRC in 1978 and reported in Alexander et al. (1982) who assign a temporal affiliation of Early to Middle Ceramic period to the site. Features 1 and 2, grooved panels, were relocated. Several large boulders at the site possess small overhangs beneath, and several overhangs were noted along the base of the cliff beyond the immediate site boundary. Their association with the site proper is inconclusive. A new feature, Feature 3, a possible structural alignment, was identified in 1997. Two bifaces were collected from the site as well (Appendix II). A shovel test was placed in a previously identified artifact concentration; one flake was recovered between 15 and 20 cm below the surface. Sparse charcoal was noted from 15 cm to 45 cm below the surface. This shovel test was excavated to a depth of 80 cm. Based on the results of shovel testing in 1988 (Van Ness et al. 1990) and in 1997, the site is recommended as eligible for nomination to the NRHP under the research themes of chronology and cultural relationships, prehistoric economies, paleoclimates, architecture, and settlement patterns as defined by Zier et al. (1997a, 1997b).

Management Recommendation

Avoid and protect. Conduct limited testing to identify the extent and integrity of buried deposits.

SPE348

This site was never fully recorded when documented in 1979 by GRC and reported in Alexander et al. (1982). It appears they planned to return but never did. The site was completely recorded in 1997 by Fort Lewis. A rebar datum with a stamped site tag was placed at the site. Natural tabular pieces of sandstone litter the surface, and some of these may be the metate fragments noted in the original site form. One deflated hearth feature was located. Temporally diagnostic artifacts have not been recovered from this site, and its temporal affiliation is general prehistoric. The present state of erosion and the shallow sediment depth are arguments against the site being recommended as eligible for nomination to the NRHP.

Management Recommendation

No further archeological work is recommended at this site.

SPE352

This site was not located. The plot of the site on the U.S.G.S. quadrangle map just north of a small hill, and the UTM readings, indicated we were in the right area for the location of this site. The site was originally recorded by GRC in 1978 and reported in Alexander et al. (1982). Transects were traversed parallel to the road mentioned in the site

form. The site was not fully documented when first recorded. No diagnostic artifacts were recorded during the original inventory. A site map was not available nor were detailed descriptions of the artifacts or photographs. The site is recommended as not eligible for nomination to the NRHP.

Management Recommendation

No further archeological work is recommended at this site.

SPE353

This site was recorded by GRC in 1979 as consisting of a charcoal concentration and a single artifact of unknown temporal affiliation eroding from a cliff face on the east side of Pierce Gulch. The site was reported in Alexander et al. (1982). The site area, which was defined on the U.S.G.S. quadrangle map, was located, but the feature has since eroded. The site is not recommended as eligible for nomination to the NRHP.

Management Recommendation

No further archeological work is recommended at this site.

SPE355

This site has changed little since it was originally recorded by GRC in 1979 and reported in Alexander et al. (1982). The site consists of a rock shelter with a single rock art panel of unknown prehistoric temporal affiliation. The pictographs resemble two anthropomorphs. A trowel test within the shelter revealed shallow (15 cm) residual deposits. The site was plotted correctly on the U.S.G.S. quadrangle map. A rebar datum with a stamped site tag was placed next to a boulder in front of the shelter. No artifacts have been found associated with the rock art. The site is recommended as eligible for nomination to the NRHP under the research theme of rock art as defined by Zier et al (1997a, 1997b). Research topics include stylistic (temporal and cultural) variability, identification of pigments, and relative and chronometric dating. Additionally, the site is recognized by Jones et al. (1998:166) as a possible traditional cultural property.

Management Recommendation

Avoid and protect. Fully document rock art.

SPE356

The site was correctly plotted on the U.S.G.S. quadrangle map. This rock shelter site contains a single rock art panel. The site was originally recorded by GRC in 1979 and reported in Alexander et al. (1982). A rebar datum with a stamped site tag was placed within the shelter and near the pictograph. The pictograph is fading with time. There were no artifacts found associated with this prehistoric site of unknown temporal affiliation. The panel consists of one anthropomorph. This image had been previously described and photographed. Two shovel tests were placed within the shelter to determine sediment depth and therefore the potential for buried deposits. The first shovel test revealed a charcoal fleck

at contact with bedrock. A second shovel test was placed near the area where surface charcoal was noted in the original site recording in 1979. This shovel test produced a piece of fire-cracked rock and charcoal at 10 cm below the surface. Artifacts, other than the fire-cracked rock, were not recovered from these subsurface explorations. The charcoal and fire-cracked rock could easily be related to the military. However, the site is recommended as eligible for nomination to the NRHP based on the research theme of rock art as defined by Zier et al. (1997a, 1997b). Research topics include stylistic variability (temporal and cultural), pigment identification, and potential for chronometric and relative dating. The site has been recognized as a possible traditional cultural property (Jones et al. 1998:166).

Management Recommendation

Avoid and protect. Fully document rock art.

5PE357

The site was located correctly on the U.S.G.S. quadrangle map and was easily relocated. The site was recorded in 1979 by GRC and reported in Alexander et al. (1982). A rebar datum with a stamped site tag was placed in the flats below the shelter because the shallow sediments within the shelter would not support the datum. The site consists solely of a pictograph of vertical and horizontal lines within a small rock shelter. No artifacts were noted on the surface of this site; therefore, temporal affiliation is the general prehistoric period. Bedrock is exposed over much of the shelter with a packrat midden (2 m x 1 m) towards the back of the shelter. The blackened ceiling may indicate more use of the shelter than the surface remains indicate. The site is recommended as eligible for nomination to the NRHP under the theme of rock art as defined by (Zier et al. 1997a, 1997b). Research topics include stylistic variability (temporal and cultural) identification of pigments, and the potential for chronometric and relative dating. The site has been recognized as a possible traditional cultural property (Jones et al. 1998:166).

Management Recommendations

Avoid and protect. Fully document rock art. The rock art is fading with time.

5PE363

The site was located by following a drainage up the side of Booth Mountain to the location on the U.S.G.S. quadrangle map. The site was originally recorded by GRC in 1980 and reported in Alexander et al. (1982). A rebar datum with a stamped site tag was established at the site. This open artifact scatter was remapped and all artifacts were analyzed. Two shovel tests demonstrated little sediment depth; beyond 20 cm the sediments are mixed with decomposed sandstone and caliche. No artifacts were recovered from the shovel tests. Fifty surface artifacts were collected during the original inventory. Seventeen years later thirty additional artifacts were recorded. One slightly expanding stemmed projectile point base was collected in 1997 and tentatively dates to the Late Archaic to Early Ceramic periods (Appendix II). It is determined that the two field recordings and the

collections have exhausted the site's research potential. The site is not recommended as eligible for nomination to the NRHP.

Management Recommendation

No further archeological work is recommended at this site.

SPE366

The site was located quickly despite its incorrect location on the U.S.G.S. quadrangle map by about 100 m. The site was recorded in 1980 by GRC and reported in Alexander et al. (1982). As originally mapped, the site included only the shelter and not the peripheral artifact scatter. A new site map was completed to illustrate the entire site assemblage. A rebar datum with a stamped site tag was established at the site. A biface fragment, a drill and a Middle to Late Archaic projectile point (Appendix II) were collected from the surface beneath the dripline. A trowel test inside the shelter recovered intact deposits to 20 cm below surface. One tool and charcoal were recovered from the test while a possible hearth was noted at 20 cm below the surface. The site has the potential to yield information on the research themes of prehistoric economies, settlement patterns, chronology and cultural relationships, and possibly on paleoclimates as defined by Zier et al. (1997a, 1997b); therefore, the site is recommended as eligible for nomination to the NRHP.

Management Recommendation

Avoid and protect. Test for subsurface features and radiocarbon dates.

SPE461

The site was plotted correctly on the U.S.G.S. quadrangle map and was easily located. A rebar datum with a stamped site tag was placed where Datum "A" appeared on the original site map. The site was recorded in 1980 by GRC, reported in Alexander et al. (1982) and test excavated. Two 1 m x 1 m test units revealed artifacts in a shallow (10 cm) deposit (Hartley et al. 1983). Surface artifacts, that included nine projectile points, were analyzed at that time. It is determined that the site has further research potential as clearly evidenced in the testing results. Late Archaic to Early Ceramic period projectile points have been recovered from the site (Hartley et al. 1983). Military disturbance appears to have ceased since the initial impact to the site was documented. The site is recommended as eligible for nomination to the NRHP because it has the potential to yield information under the research themes of chronology and cultural relationships, settlement patterns, and prehistoric economies as defined by Zier et al. (1997a, 1997b).

Management Recommendation

Avoid and protect.

SPE623

The site was plotted correctly on the U.S.G.S. quadrangle map and was easily located on a narrow terrace near Red Creek. The original site datum, however, was not located. A

rebar datum with a stamped site tag was established near the artifact concentration, which was relocated. Five basket-impressed ceramics and a biface fragment were originally noted within the artifact concentration. A representative sample of artifacts were collected when the site was originally recorded by CA in 1983 and reported in Zier et al. (1987). A few days after the site was originally recorded, a 1 m x 1 m test unit was excavated at the site. Two metate fragments and one chert flake were recovered in the upper 13 cm. These results demonstrated that the site possessed at least a shallowly buried cultural deposit. Two cord-marked ceramics were collected during the revisit by FLC (Appendix II) and their presence supports an Early to Middle Ceramic period occupation for the site. The site has received impacts from vehicular traffic, and the contextual integrity of the cultural deposits is uncertain due to military impacts and prairie-dog disturbances. Despite these impacts, the site is recommended as eligible for nomination to the NRHP under the research themes of chronology and cultural relationships, settlement patterns, and prehistoric economies as defined by Zier et al. (1997a, 1997b).

Management Recommendation

Avoid and protect. Conduct limited testing to determine context of buried deposits.

5PE648 (Recon John Shelter)

This site was located correctly on the U.S.G.S. quadrangle map and was easily located, but the UTM designations were slightly adjusted from the originals. This rock shelter site was recorded by CA in 1984 and reported in Zier and Kalasz (1985). A rebar datum with a stamped site tag was placed near the dripline of the shelter. The site is more commonly referred to as the Recon John Shelter because historic graffiti ("Recon John") is painted on the exterior cliff face. The site is considered sufficiently intact (roughly 70% of the midden) to provide a deep, well-stratified soil and sediment profile, as well as intact cultural deposits, which were previously documented through testing in 1984 (Zier and Kalasz 1985) and partial excavation in 1986 (Zier 1989; Zier and Kalasz 1991). These excavations demonstrated that the site was occupied during the Middle to Late Archaic or perhaps the Early Ceramic periods. A new hearth feature (Feature 2) was recognized in 1997 in the cutbank 2 m below the terrace surface. The hearth has oxidized sandstone fragments, oxidized sediments, and an oxidized sandstone slab that has fallen from its original location. Measurements on the exposed feature are 20 cm x 20 cm. Presumably, a portion has already eroded through slope wash. To preserve the remaining portions of the hearth, this feature was not investigated further. Clearly, the site had yielded significant archeological deposits, and the remaining portions contain additional important archeological information. It is recommended that the site is eligible for nomination to the NRHP under the research themes of prehistoric economies, prehistoric settlement, chronology and cultural relationships, paleoenvironment, and possibly on horticulture as defined by Zier et al. (1997a, 1997b).

Management Recommendation

Avoid and protect. Conduct limited excavations to salvage exposed hearth in cut-bank and to stabilize cut-bank.

SPE649 (Mary's Fort)

This structural site was originally investigated by Renaud (1936; 1942) and recorded by CA and reported in Zier and Kalasz (1985). The site, commonly referred to as Mary's Fort, was correctly located on the U.S.G.S. quadrangle map. The original rebar datum was located, and a stamped site tag was attached to it. The description of the site on the original site form matched the present condition in 1997. All features originally identified were located during the 1997 reevaluation. These include a stacked-stone circular feature and a curvilinear stack-stone wall. Artifacts recognized on the ground include a plethora of flakes, groundstone, manos, tools, and ceramics. Three artifacts which include one unidentifiable ceramic, one complete snubnosed endscraper, and one orthoquartzite biface tip were mapped and collected in 1997 (Appendix II). The site boundary was extended to the northeast. Test excavations (Zier and Kalasz 1985) demonstrated that the site has significant subsurface archeological potential. A charcoal sample was acquired during testing, and it produced an uncalibrated radiocarbon date of 560 ± 70 B.P. (Beta 11899 [Zier et al. 1997:Table 1]). The radiocarbon date, along with diagnostic artifacts, supports a Middle Ceramic period occupation for the site. The site remains in good physical condition. This site is recommended as eligible for nomination to the NRHP because it has the potential yield significant information on the themes of prehistoric economies, settlement patterns, chronology and cultural relationships, architecture, and horticulture as defined by Zier et al. (1997a, 1997b).

Management Recommendation

Avoid and protect.

SPE738

This site was located properly on the U.S.G.S. quadrangle map. The old datum was not relocated, and a new rebar datum with a stamped site tag was placed at the site. This open site as originally recorded by CA in 1985 included hearths which were represented by oxidized-rock concentrations and ash scatters (Zier et al. 1987). A few possible oxidized rocks were noted by Fort Lewis; however, the heaviest military impacts are in these oxidized-rock concentrations. Groundstone artifacts were not observed in 1997, but the original site form indicates that a few manos were collected from the site. Two broken projectile points were collected during the 1997 reevaluation (Appendix II). A previously undocumented small U-shaped sandstone feature was recorded during the reevaluation. Its function or relationship to the site, other than proximity, is unknown. The site is assigned to the Early to Middle Ceramic period. It is recommended that this site is eligible for nomination to the NRHP based on its potential to yield information about the research themes of prehistoric economies, settlement patterns, and chronology and cultural relationships as defined by Zier et al. (1997a, 1997b).

Management Recommendation

The site should be protected from continued military disturbance which has already impacted the site. It is also recommended that limited testing be conducted to determine the extent of impact to the site.

SPE743

The site was located with difficulty. The U.S.G.S. quadrangle location and the UTM coordinates were fairly correct, but the form and the map did not describe the site adequately. The site was originally recorded in 1985 by CA and reported in the HPP (Zier et al. 1987). The datum was located, and all features including the niches and overhangs were located. Only one of the two slab metates was relocated. A stamped site tag was attached to the original rebar datum. The juniper log and dry-laid structure is believed to be historic rather than probable Protohistoric as originally described, because the structure has qualitites (i.e., sediment accumulations and condition of the logs) that appear recent. No artifacts other than the slab metate and a single core were found. A trowel test in the small overhang produced a single flake, charcoal and a sediment change at 15 cm below surface. Based on the trowel test, the site has the potential to yield significant information on the themes of prehistoric economies, settlement patterns, and possibly paleoclimates as defined by Zier et al. (1997a, 1997b). It is recommended that the site is eligible for nomination to the NRHP.

Management Recommendation

The historic component needs further investigation to determine significance, but the prehistoric component is recommended as eligible for nomination. The site should be avoided and protected. The overhang should be reexamined in light of other unrecorded lithic scatters in the immediate vicinity.

SPE745

The site was located correctly on the U.S.G.S. quadrangle map, and a rebar datum was present at the site. A stamped site tag was attached to the rebar datum. All temporally diagnostic artifacts and all nondiagnostic tools were collected when the site was originally recorded by CA in 1985 and reported in Zier et al. (1987). The site is assigned to the Middle to Late Ceramic periods based on diagnostic artifacts. Eighteen flaked-lithic tools and one large metate were noted on the surface during the 1997 revisit. This observation suggests that more artifacts have eroded since the initial recording, and that a buried cultural deposit is present at this site. All tools were plotted and recorded, and two projectile points were collected (Appendix II). The projectile points include a Washita or Reed Type, and an untyped specimen. A deflated hearth and an artifact scatter noted on the original site form were not relocated. A trowel test under the largest boulder shelter indicated at least 10 cm of deposition. A metate fragment was found partially buried to a depth of 10 cm as well. The site has a variety of artifacts and has the potential for buried cultural deposits. The site is recommended as eligible for nomination to the NRHP under the research themes of prehistoric economies, settlement patterns, and chronology and cultural relationships as defined by Zier et al. (1997a, 1997b).

Management Recommendation

Avoid and protect. Conduct limited testing to evaluate integrity of buried deposits.

5PE746 (Wickiup Site)

The site was located correctly on the U.S.G.S. quadrangle, and a rebar datum was found. A stamped site tag was attached to the rebar datum. The site was originally recorded by CA in 1985 and reported in Zier et al. (1987). The wickiup structures described on the form were all located; however, this portion of Booth Mountain possesses many dead and downed trees, particularly piñon trees. Dead and dying trees and limbs were observed in this part of the forest leaning against live trees. This observation lends doubt to the interpretation of the site being a Protohistoric wickiup site. Eight artifacts which included seven flakes and a metate fragment were previously recorded. The site's temporal affiliation remains inconclusive due to the lack of diagnostic artifacts and the doubt surrounding the possible wickiup structures. It should be noted, however, that this site has been recognized (Jones et al. 1998:166-167) as containing the remains of wooden structures that may have been wickiups. Additionally, these authors state that its location on Booth Mountain may have traditional significance as lookouts or vision quest sites. Based strictly on archeological evidence, it is recommended that the site is not eligible for nomination to the NRHP.

Management Recommendations

In consultation with Ms. Connor (MWAC), it was decided to have the site assessed by an archeologist familiar with Protohistoric structures.

5PE750

The site was correctly located on the U.S.G.S. quadrangle map. A stamped site tag was attached to the existing rebar datum. This site was originally recorded by CA in 1985 and reported in Zier et al. (1987). It was reevaluated by Fort Lewis College in 1995, and the results were reported in Charles et al. (1997a). At that time, it was recommended that 5PE749 be included with 5PE750. Two small, previously unrecorded rock art panels were recorded as well. The site is comprised of at least seven stacked-stone structures surrounding a natural water-catchment basin on the top of Booth Mountain. This site type is the only one of its kind thus far identified along the western edge of the Booth Mountain syncline. The structures resemble those of sites dated to the Early to Middle Ceramic periods. The site is recommended as eligible for nomination to the NRHP based on the potential to yield significant information on the research themes of prehistoric economies, settlement and subsistence, architecture, chronology and cultural relationships, and perhaps horticulture as defined by Zier et al. (1997a, 1997b).

Management Recommendations

Avoid and protect. Incorporate 5PE749 with 5PE750 as a single site. Conduct testing to determine temporal affiliation and function of the structures, which are in an unusual topographic location for this site type at Fort Carson.

SPE793 (Stone City)

This site was located correctly on the U.S.G.S. quadrangle, but the site map that accompanied the site form was from the original inventory and did not include all recently recorded features (Carrillo et al. 1991). The site was first recorded in 1985 and reported in Schweigert (1987). It was reported on again by CA (Zier et al. 1987). A site map with current features was obtained from the report by Carrillo et al. (1991). A rebar datum with an attached stamped site tag was placed just south of the road and upslope to the west of Feature 19. Feature 19, an arched culvert, is recommended as eligible for nomination to the NRHP. This feature has not changed since the 1989 reevaluation by CA (Carrillo et al. 1991). This feature was relocated and reevaluated. This is an excellent example of a vaulted arched stone and concrete culvert associated with Stone City. The feature is an important historic resource associated with stone and clay quarrying, mining, and attendant processes. It is recommended as eligible for nomination to the NRHP under the theme of mining and quarrying as defined by Zier et al. (1997a, 1997b).

Management Recommendation

Avoid and protect.

SPE796

This rock shelter site was located correctly on the U.S.G.S. quadrangle map. A PVC datum was left when the site was recorded in 1985 by CA and reported in Zier et al. (1987). A rebar datum with a stamped site tag was placed at the PVC datum location. The original form states moderate to heavy disturbance, but it is our opinion that the disturbance is light. A small corner-notched projectile point (Early to Middle Ceramic period) was reported to have been on the surface, but archeologists from CA did not relocate this artifact. A small unrecorded rock art panel was noted in 1997 and added to the reevaluation form and the site map. Flaked-lithic artifacts and fire-cracked rock indicate possible tool manufacture as well as subsistence activities. The site is recommended as eligible for nomination to the NRHP based on the visible intact nature of the rock shelter, the presence of soil deposits as indicated by a pinflag probe showing 20-50 cm of deposition, the presence of parallel grooves—shaft abraders in bedrock—and the new rock art panel identified in 1997. The site has the potential to yield information on the research themes of prehistoric economies, settlement patterns, chronology and cultural relationships, paleoclimates, and rock art as defined by Zier et al. (1997a, 1997b).

Management Recommendation

Avoid and protect. Complete documentation of rock art, and limited testing to determine extent of cultural deposits.

SPE868 (Ocean Vista)

This site was located correctly on the U.S.G.S. quadrangle map and remains in good condition. The original datum locations were difficult to locate; however, a PVC datum (Datum A) from the original inventory was located. A stamped site tag was attached to a

rebar and placed within the PVC datum. The site was recorded by CA in 1988 and reported in Van Ness et al. (1990). It was later tested by CA, and the results are reported in Kalasz et al. (1993). A retouched flake, a biface, a scraper, and a cord-marked rim were collected in 1997 (Appendix II). The site has produced significant archeological resources including open architecture, ceramics, projectile points, faunal remains, and radiocarbon dates that place the site within the Early or Middle Ceramic periods. The site is recommended as eligible for nomination to the NRHP based on the themes of prehistoric economies, settlement patterns, architecture, horticulture, and chronology and cultural relationships as defined by Zier et al. (1997a, 1997b).

Management Recommendations

Avoid and protect. Excavate the eroding portions of midden.

5PE889 (Sullivan Butte)

This site was located correctly on the U.S.G.S. quadrangle map and was easily relocated. A rebar datum with a stamped site tag was placed in the area where mapping Station A was located on the original site map. The site was recorded by CA in 1988 and reported in Van Ness et al. (1990). The site has numerous architectural units and a moderate scatter of flaked-lithic artifacts. Some of the features are more obvious than others. Features 5 and 10, however, could not be confidently relocated. Features 1, 4, 7, and 8 were very ephemeral and thus difficult to confidently identify. Features 2, 3, 6, and 9 were much easier to identify. The features show some effects of weathering such as collapse. In many areas structural sandstone is difficult to distinguish from the natural outcrop. There is evidence of military activity at the site as well. Further disturbances may eventually compromise the integrity of the remaining features. The base of a Middle or Late Archaic projectile point was mapped and collected during the revisit (Appendix II) although the architecture is consistent with sites which date to the Early or Middle Ceramic periods. This site is recommended as eligible for nomination to the NRHP under the research themes of prehistoric economies, settlement patterns, chronology and cultural relationships, architecture, and possibly horticulture as identified by Zier et al. (1997a, 1997b). This site is recognized as one that may assist in the identification of traditional cultural properties based on the presence of rock art (Jones et al. 1998:166). However, there is no evidence from either recording to suggest that rock art is present at this site.

Management Recommendation

Avoid and protect.

5PE904 (Woodbine Shelter)

The site was located correctly on the U.S.G.S. quadrangle and was easily located. This site shows no signs of vandalism since it was originally recorded by CA in 1988 and reported in Van Ness et al. (1990). This rock shelter site was test excavated by CA, and the results reported in Kalasz et al. (1993). A charcoal sample from this testing produced an uncalibrated radiocarbon date of 880 ± 60 B.P. (Beta-40666), which suggests that the site was

occupied during the Middle Ceramic period. The site is deemed to have the potential to yield significant information, which was demonstrated through test excavations (Kalasz et al. 1993). Artifacts were observed on the surface along the west edge of the shelter near Test Unit 5. Two cord-marked ceramics were collected during the revisit (Appendix II) which support a Middle to Late Ceramic period occupation. The site is recommended as eligible for nomination to the NRHP under several themes, paleoclimates, chronology and cultural relationships, prehistoric economies, settlement patterns, architecture, and horticulture as defined by Zier et al. (1997a, 1997b).

Management Recommendation

Avoid and protect.

5PE910 (Gooseberry Shelter)

This site was difficult to locate due to dense vegetation and incorrect UTM coordinates; however, the location on the U.S.G.S. quadrangle map was correct. The site remains intact and a PVC datum was found on the ground. A rebar datum with a stamped site tag was placed in the shelter. The site was originally recorded by CA in 1988, reported in Van Ness et al. (1990) and subsequently tested by this same archeological company (Kalasz et al. 1993). The test unit was visible because the backfill within the units had settled away from the walls. Artifacts were not observed in the shelter, and the thick gooseberry along the opening obscures the ground surface. The shelter is situated along the base of the sandstone cliff just above the flood plain of Turkey Creek. It has produced the only firmly dated Early Archaic archeological remains in the FCMR (Zier et al. 1997:51). The site has evidence to support occupation from the end of the Early Archaic through the Early Ceramic periods. The site has intact buried deposits to a depth of 2.5 m which span most of the prehistoric period at Fort Carson. Results of shovel testing (Van Ness et al. 1990) and test excavations (Kalasz et al. 1993) have demonstrated that the site has yielded significant information on the themes of prehistoric economies, settlement patterns, paleoclimates, and chronology and cultural relationships as defined by Zier et al. (1997a, 1997b). This site is recognized as one which may assist in the identification of traditional cultural properties based on a Late Ceramic period affiliation (Jones et al. 1998:166), although the artifacts and associated radiocarbon ages do not support a Late Ceramic period occupation.

Management Recommendation

Avoid and protect. Conduct further excavation as recommended by (Kalasz et al. 1993:320)

5PE926 (Susie's Place West)

This site was located correctly on the U.S.G.S. quadrangle map. The PVC datum from the original inventory was located. A rebar datum with a stamped site tag was placed at the location of the PVC datum. The site was recorded in 1988 by CA and reported in Van Ness et al. (1990). All structures were located properly and accurately described. The site boundary was extended to include eight small rock cairns or wall segments along the canyon

rim. These may be of military origin and this may explain their exclusion on the original site map. However, there is some doubt as to their temporal affiliation, and they could be associated with the prehistoric component. Depth of sediments in the interior of one structure is 15 cm. The architecture is in good condition and is representative of architecture at sites dating from the Early to Middle Ceramic periods. The site is recommended as eligible for nomination to the NRHP under the open architecture district theme as defined by Zier et al. (1997a, 1997b). Research themes include chronology and cultural relationships, prehistoric economies, settlement patterns, and architecture as defined in Zier et al. (1997a, 1997b).

Management Recommendation

Avoid and protect.

SPE1120 (Butler Site)

This site was slightly mislocated on the U.S.G.S. quadrangle map; however, a PVC datum from the original inventory remained in place. The site was recorded in 1983 by CA and reported in Van Ness et al. (1990). A rebar datum with a stamped site tag was placed at the site. All features (structures) were located accurately, and feature and site descriptions were good. A single flake and a mano fragment were the only new artifacts recorded. The architecture is in good condition and represents a good example of open architecture sites associated with the Early to Middle Ceramic periods. The site is recommended as eligible for nomination to the NRHP based on the open architecture district theme (Zier et al. 1997a, 1997b). The site has the potential to yield information about settlement patterns, prehistoric economies, architecture, chronology and cultural relationships, and possibly horticulture as defined in Zier et al. (1997a, 1997b).

Management Recommendation

Avoid and protect.

SPE1571

This site was located correctly on the U.S.G.S. quadrangle map. The site was recorded in 1993 by CA and reported in Zier et al. (1996). A stamped site tag attached to a rebar datum was placed at the site. Feature 1 was relocated along with a few groundstone artifacts. In addition to the previously recorded artifacts, several tools were observed in 1997, and five ceramics were collected (Appendix II). The presence of ceramics supports the initial temporal affiliation of the Middle Ceramic period. Bedrock is exposed over about 15 % of the site. Sediments and artifacts have collected in the low swells and dips in the bedrock. Although a possible feature of unknown function is present at the site, the potential for significant buried deposits is low. Surface analysis and mapping have sufficiently recorded the site, and it is recommended that the site is not eligible for nomination to the NRHP.

Management Recommendation

No further archeological work is recommended at this site.

SPE1576

This site was located correctly on the U.S.G.S. quadrangle map, but the UTM coordinates and the legal location did not match the physical location by several meters. A rebar datum with a stamped site tag was placed at the earlier original PVC datum location. The site was recorded in 1993 by CA and reported in Zier et al. (1996). A light artifact scatter was observed and two of the six features were recognized; the remaining four were not convincingly identified. These rock concentrations, however, did not appear to be prehistoric hearths. The rock did not look thermally altered, charcoal was not observed, and the concentrations did not resemble hearth features. A general prehistoric temporal affiliation is assigned to the site. A shovel test adjacent to one of the rock concentrations exposed 25 cm of sediments ranging from gravelly silt loam to tabular sandstone bedrock. No charcoal or artifacts were recovered in the shovel test. The reevaluation of this site has determined that the site is not recommended as eligible for nomination to the NRHP based on the inconclusiveness of the hearths, the dearth of artifacts, and the lack of subsurface deposits. The site documentation has sufficiently exhausted the site's research potential.

Management Recommendation

No further archeological work is recommended at this site.

SPE1577

The site was relocated using a PLGR unit because it was slightly misplotted on the U.S.G.S. quadrangle map. This site was originally recorded by CA in 1993 and reported in Zier et al. (1996). A rebar datum with a stamped site tag was placed at the original PVC datum location. The site was recorded as consisting of a light scatter of five flaked-lithic artifacts and three hearths. Of the three hearths previously identified, only Feature 3 was relocated using photographs. This feature consisted of a concentration of local sandstone rocks without any oxidation, charcoal, or artifacts in direct association. Therefore, the feature was discounted as a hearth. The temporal affiliation is determined to be the general prehistoric period. Numerous recent military hearths are present in the area. No artifacts were observed within the mapped site boundary at the time of the revisit. A shovel test was placed near the datum and revealed no buried cultural deposits although gravelly sediments were exposed to a depth of 25 cm below surface. Taken within this context, the site is recommended as not eligible for nomination to the NRHP. The documentation at this site has sufficiently exhausted the research potential.

Management Recommendation

No further archeological work is recommended at this site.

SPE1584

The site was correctly located on the U.S.G.S. quadrangle map. The site was originally recorded in 1993 by CA and reported in Zier et al. (1996). A rebar datum with a stamped site tag was placed at the location of the original PVC datum. The site map was slightly altered for better detail. It is estimated that 50+ flakes, mostly orthoquartzite, are

concentrated down the slope in front of the shelter dripline. These artifacts are predominantly primary flakes, cores, and debris of orthoquartzite. A few of the flakes are utilized. The lack of diagnostic artifacts from either recording session places the site within a general prehistoric temporal period. A bone antler (possibly utilized) was mapped and collected from within the shelter (Appendix II). Above the shelter there is a fair amount of naturally occurring orthoquartzite that may have supplied the source for the flakes. The recent juniper logs in the shelter's front, along with the sandstone alignment, are attributed to the military. A shovel test at the dripline was excavated to 30 cm below the surface, but no artifacts were recovered, and deposits did not appear to be cultural. There is no evidence for significant subsurface deposits; therefore, the site is not recommended as eligible for nomination to the NRHP. Mapping and the flaked-lithic analysis have exhausted the research potential of the site.

Management Recommendation

No further archeological work is recommended at this site.

5PE1588

This site was located correctly on the U.S.G.S. quadrangle map. A rebar datum with a stamped site tag was placed at the old PVC datum. The site was originally recorded in 1993 by CA and reported in Zier et al. (1996). The site consists of an intensive scatter of orthoquartzite. This site, along with several others recorded along the ridge top, is interpreted to be related to the procurement of the outcropping orthoquartzite along the ridge, and as such should be reinterpreted as a continuous archeological site with several activity loci. A few loci appear discrete but in general this scatter continues over the most of the ridge top. No diagnostic artifacts were recovered from the site, and it is unclear as to whether the site was frequented over a brief but intense period or if the site was visited over a long period in prehistory. The site has the potential to yield significant information within the technologies research theme, particularly about lithic procurement strategies and predominant lithic industries employed in the Fort Carson region (Zier et al. 1997). It is recommended that this site is eligible for nomination to the NRHP.

Management Recommendation

Avoid and protect. This site, along with others recorded along this ridgeline, should be grouped under a single number with separate activity loci. In the future the whole ridge could be instrument mapped, and the artifacts sampled to elucidate variables of lithic source procurement and tool manufacture.

5PE1594

This site was relocated using the plot on the U.S.G.S. quadrangle map. The PVC datum from the original inventory was replaced with a rebar datum and an attached stamped site tag. The site was recorded in 1993 by CA and reported in Zier et al. (1996). The only artifact, a mano fragment, noted at the site had been previously collected. Surface inspection of the area failed to locate additional artifacts. Three shovel tests were excavated to depths

ranging from 18-39 cm below surface, and artifacts were not recovered from any of the shovel tests. Feature 2 was not observed and is presumed to have eroded. Feature 1, a hearth, is in jeopardy of eroding, and a profile was drawn and photographed. A charcoal sample was collected from the feature as well. The feature only extends 6-8 cm into the bank. The sample was processed in the lab at Fort Lewis College. A light fraction consisting of charcoal and modern organic materials and weighing 1 gm was recovered. Due to the small amount of charcoal, the sample was not submitted for further analysis. The detailed recording of the hearth has exhausted the research potential of the feature. Documentation and sample collection has exhausted the research potential of this site. The site is not recommended as eligible for nomination to the NRHP.

Management Recommendation

No further archeological work is recommended at this site.

5PE1595

This site was located correctly on the U.S.G.S. quadrangle map and was easily located. The PVC datum from the original inventory was replaced with a rebar datum and attached stamped site tag. The site, a flaked-lithic scatter with a hearth feature, was recorded by CA in 1993 and reported in Zier et al. (1996). The original site map was adequate, but it was modified to show a disturbed area, the location of a single artifact, and the location of shovel tests placed in 1997. Three shovel tests placed at the site ranged in depth from 38-44 cm below the surface. A piece of rubber tire tread was recovered between 23 and 44 cm below the surface. The results of shovel testing failed to recover any evidence of cultural subsurface deposits. One flaked-lithic artifact was found on the surface during the 1997 revisit. The relationship of the hearth to the lithic artifact is inconclusive. Military artifacts and very recent historic ceramics are common in the vicinity of the hearth. The hearth's association with these materials is dubious due to its eroded condition. The hearth was profiled and photographed, and a plan view was drawn (Figure 6.8). The location of the hearth makes it susceptible to slope wash erosion and military disturbance. A charcoal sample for possible radiocarbon dating was extracted from the hearth. The sample was processed in the lab at FLC. A total of 1.5 gm of charcoal and modern organic materials were recovered. The charcoal is suspected of being of recent origin; therefore, it was not submitted for further analysis. The shallow nature of the hearth and the extent of the recording have exhausted the research potential of the hearth. The site is not recommended as eligible for nomination to the NRHP.

Management Recommendation

No further archeological work is recommended at this site.

5PE1603

The site was plotted correctly on the U.S.G.S. quadrangle map. The original PVC datum was located, and a rebar datum with attached stamped site tag was placed in this location. This site, which was inventoried by CA in 1993 and reported in Zier et al. (1996),

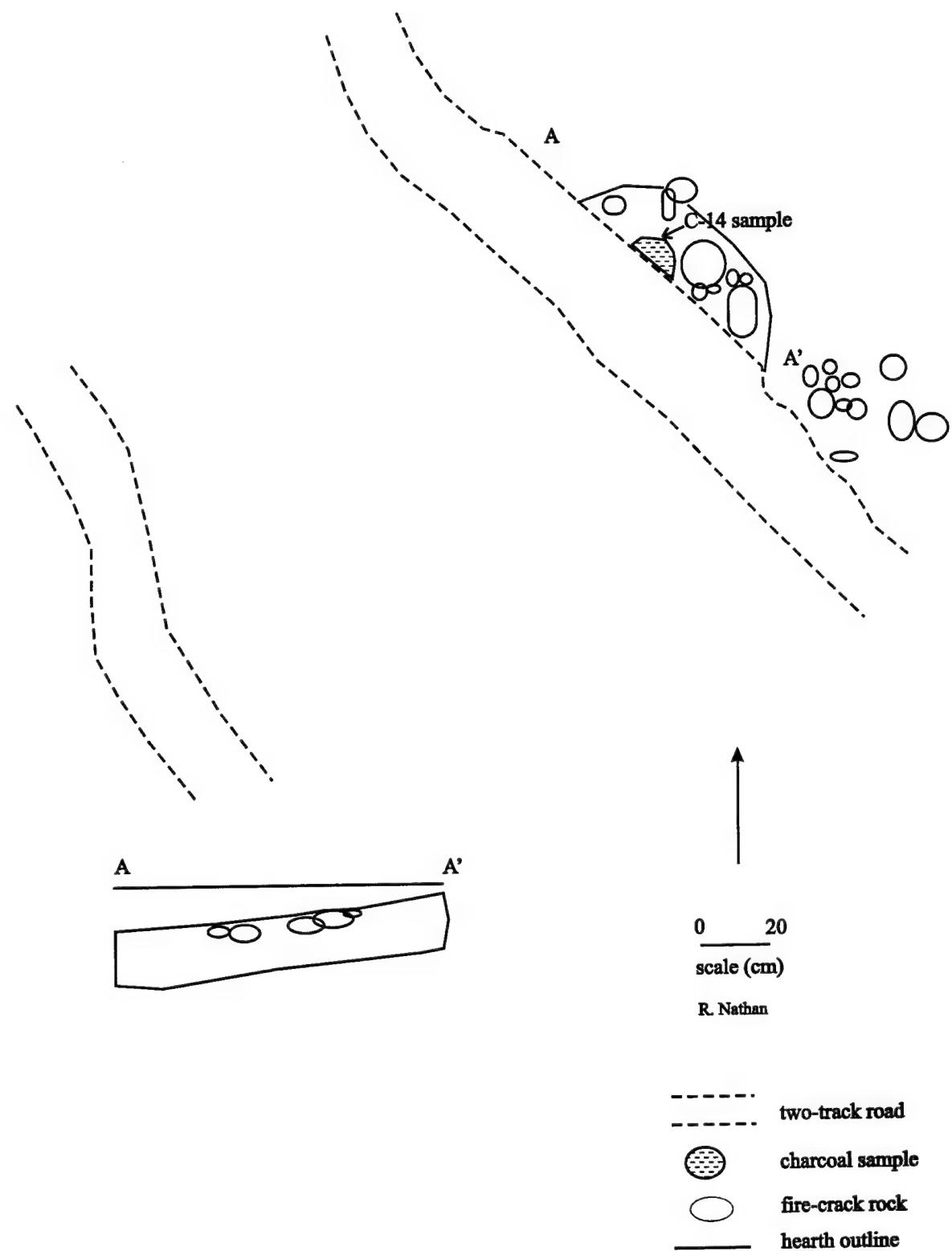


Figure 6.8. Plan View and Profile, Hearth, 5PE1595.

represents one of few prehistoric lithic quarries documented at Fort Carson. Outcrops of orthoquartzite and silicified wood are present along the surface. Other similar outcrops may occur in the area of this ridge or even on the ridge itself. No diagnostic artifacts were recovered from the site, and it is not known as to whether the site was frequented over a brief but intense period or if the site was visited over a long period in prehistory. Two previously recorded hearth features were not relocated. The site is recommended as eligible for nomination to the NRHP under the technologies research theme, particularly lithic procurement strategies and predominant lithic industries employed in the Fort Carson region (Zier et al. 1997).

Management Recommendation

Avoid and protect. Examine other nearby sites that may be included as a single large quarry site.

5PE1604

This site was easily located from the plot on the U.S.G.S. quadrangle map, and the original datum (PVC) was still in place. A rebar datum with an attached stamped site tag was placed at the original datum location. The site was inventoried by CA in 1993 and reported in Zier et al. (1996). A hearth is evident, but is only about 20 % intact. The hearth feature measures 35 cm x 45 cm with between 20-30 fire-cracked rock. No charcoal was observed, and the hearth is too compromised by its position in the middle of a military road to gain additional information beyond that presently recorded. The hearth was photographed and two metate fragments were placed on the map. No other artifacts were noted either along the surface or eroding from the road cut of this small site. The temporal affiliation of the site is the general prehistoric period. This site is recommended as not eligible for nomination to the NRHP.

Management Recommendation

No further archeological work is recommended at this site.

5PE1606

This site was accurately located on the U.S.G.S. quadrangle map. The original PVC datum was relocated, and a rebar datum with an attached stamped site tag was placed in this location. The site was recorded in 1993 by CA and is reported in Zier et al. (1996). The search for the six previously identified architectural features proved somewhat unsuccessful. Three of the six features (2, 3, and 5) were identified, but Feature 3 is somewhat questionable. Features 1, 4, and 6 were not found within a reasonable time (1½ hrs.). Additionally, two previously unrecorded stacked-stone slab walls along the south rim of the site were mapped and recorded. The site boundary was extended to include these features. A fairly intense artifact concentration (~50 artifacts) was described and placed on the site map as well. The site is an open architectural site with a generally light ground and flaked-stone scatter with one area of artifact concentration. There have been no diagnostic artifacts

recovered from the surface of this site; however, the architectural style observed here generally resembles that of Early to Middle Ceramic period sites from FCMR. The site has the potential to yield significant data on the research themes of architecture, settlement patterns, prehistoric economies, chronology and cultural relationships, and possibly horticulture as defined in Zier et al. (1997a, 1997b). This site is recommended as eligible for nomination to the NRHP.

Management Recommendation

Avoid and protect.

SPE1607

This site was located correctly on the U.S.G.S. quadrangle map. The original PVC datum was replaced with a rebar datum and stamped site tag. The site was originally recorded in 1993 by CA and is reported in Zier et al. (1996). Small tool-manufacturing flakes (30) were noted on the surface even though 100 % of the flaked-lithic artifacts had been collected when originally recorded. There is definite modern disturbance to the site, although the extent of disturbance has not been determined. Two shovel tests were excavated to determine the potential for sediment depth. Modern refuse was found in the first shovel test. The second shovel test produced two flaked-lithic artifacts from a depth between 0-18 cm below the surface, and a possible buried cultural deposit was identified between 15-18 cm below the surface. This shovel test was placed next to Feature 1, which was originally described as a sandstone alignment, but is currently believed to be of military origin. A lack of diagnostic artifacts precludes specifying a temporal association beyond that of the general prehistoric period. Although shallow, the site does have archeological research potential. The site is therefore recommended as eligible for nomination to the NRHP under the research themes of prehistoric economies, settlement and subsistence, chronology and cultural relationships, and paleoclimates as defined in the Zier et al. (1997a, 1997b).

Management Recommendation

Avoid and protect.

SPE1610

The site was located correctly on the U.S.G.S. quadrangle map, and the original PVC datum was replaced with a rebar datum and attached stamped site tag. The site was originally recorded in 1993 by CA and is reported in Zier et al. (1996). While artifacts, other than metates, were not observed on the surface of this rock shelter site, a shovel test recovered a single chert flake and an unidentified bone fragment between 0-30 cm below the surface. The charcoal observed in this shovel test is interpreted to represent a probable cultural unit between 18-30 cm below the surface. Based on the probability of a buried cultural unit, the site has the potential for significant *in situ* buried deposits. Diagnostic artifacts have not been recovered from this site, and the temporal affiliation is inconclusive beyond that of the general prehistoric period. The site is recommended as eligible for nomination to the NRHP based on the research themes of prehistoric economies, settlement

and subsistence, chronology and cultural relationships, and paleoclimates as identified in Zier et al. (1997a, 1997b).

Management Recommendation

Avoid and protect

Newly Recorded Sites and Isolated Finds

In addition to the reevaluation of the preceding 89 cultural resources an additional six resources (four sites and two isolated finds) were recorded over the course of the project. These six resources were identified while traveling to or from previously recorded sites. The two isolated finds were recorded immediately, but the four sites were recorded after the completion of the reevaluation project.

5PE2208

This site (Figure 6.9) was located while investigating site 5PE58, a rock art site. This site consists of a single rock art panel with ten petroglyphs unevenly distributed over a roughly rectangular area of 1.4 m x 1.35 m (Figure 6.10). The panel is situated near the base of a vertical sandstone cliff. The exposure of Dakota Sandstone extends from the top of the mesa to about one-third of the way down the steep talus slope. At this position there is a slight break in the slope delineated by a narrow grassy area directly in front of the rock art panel. A rebar datum with a stamped site tag was placed directly in front of the panel. No artifacts were found in association with the panel. Aspect from the panel is to the west-southwest directly overlooking Turkey Creek. The images on the panel are weathered, and this made it difficult to firmly distinguish the forms. Most of the elements are curvilinear or straight with a few solidly pecked elements that may represent zoomorphs. This panel is located about 50 m up slope and to the southeast along the cliff from 5PE58, a significant rock art site. The age of the rock art is not conclusive, but it is presumed that the rock art is post-Archaic. It is recommended that the site is eligible for nomination to the NRHP under the theme of rock art as a discontiguous district as recognized in Zier et al. (1997a, 1997b).

Management Recommendation

Avoid and protect. Fully document rock art panels.

5PE2209 (Yeaton Site)

Site 5PE2209 is a rock shelter site (Figure 6.11) with a light artifact scatter, a huge roof slab boulder with five rock art panels (Figure 6.12, 6.13, 6.14), and one boulder metate with a superimposed petroglyph (Figure 6.14). A rebar datum with a stamped site tag was placed below the dripline. The shelter is formed in the Dakota Sandstone along the south side of a bedrock drainage that flows from east to west along the west-facing slope of Booth Mountain. The shelter is open to the north-northwest. It is formed at the interface of the vertical sandstone cliff and the drainage. The shelter is formed primarily through roof-slab

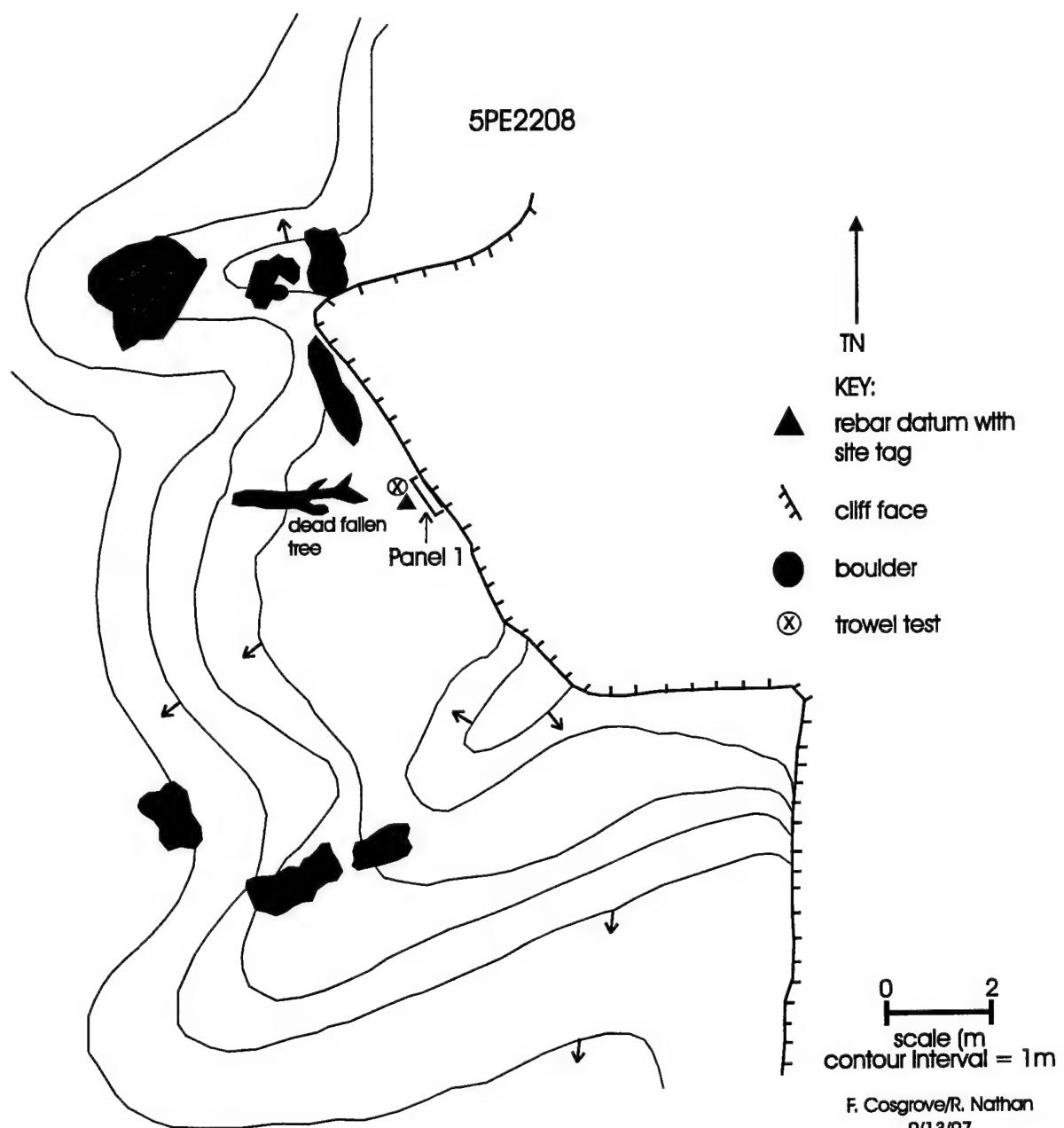


Figure 6.9. Site Map, 5PE2208.

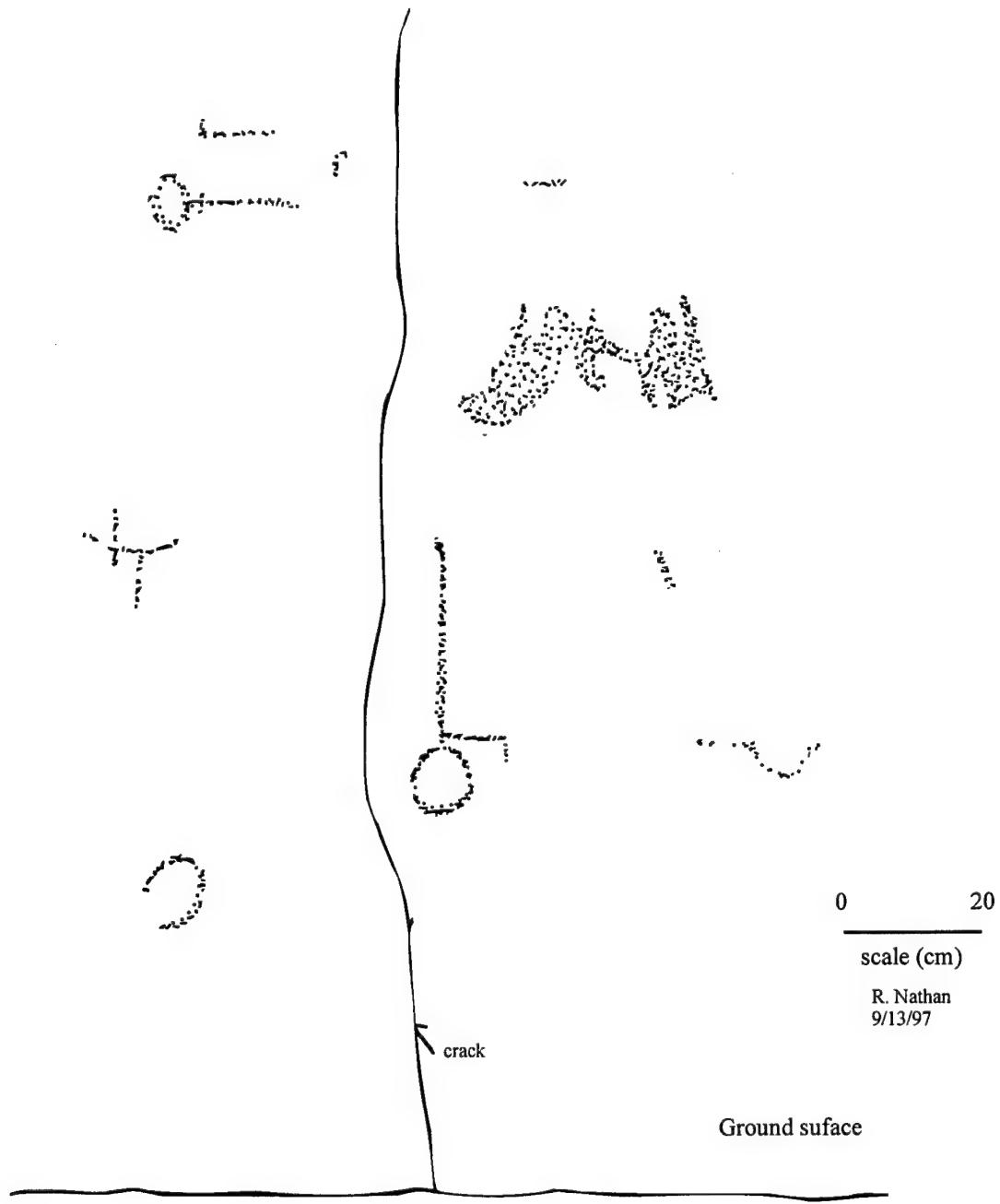


Figure 6.10. Scaled Drawing of Rock Art Panel, 5PE2208.

6.65

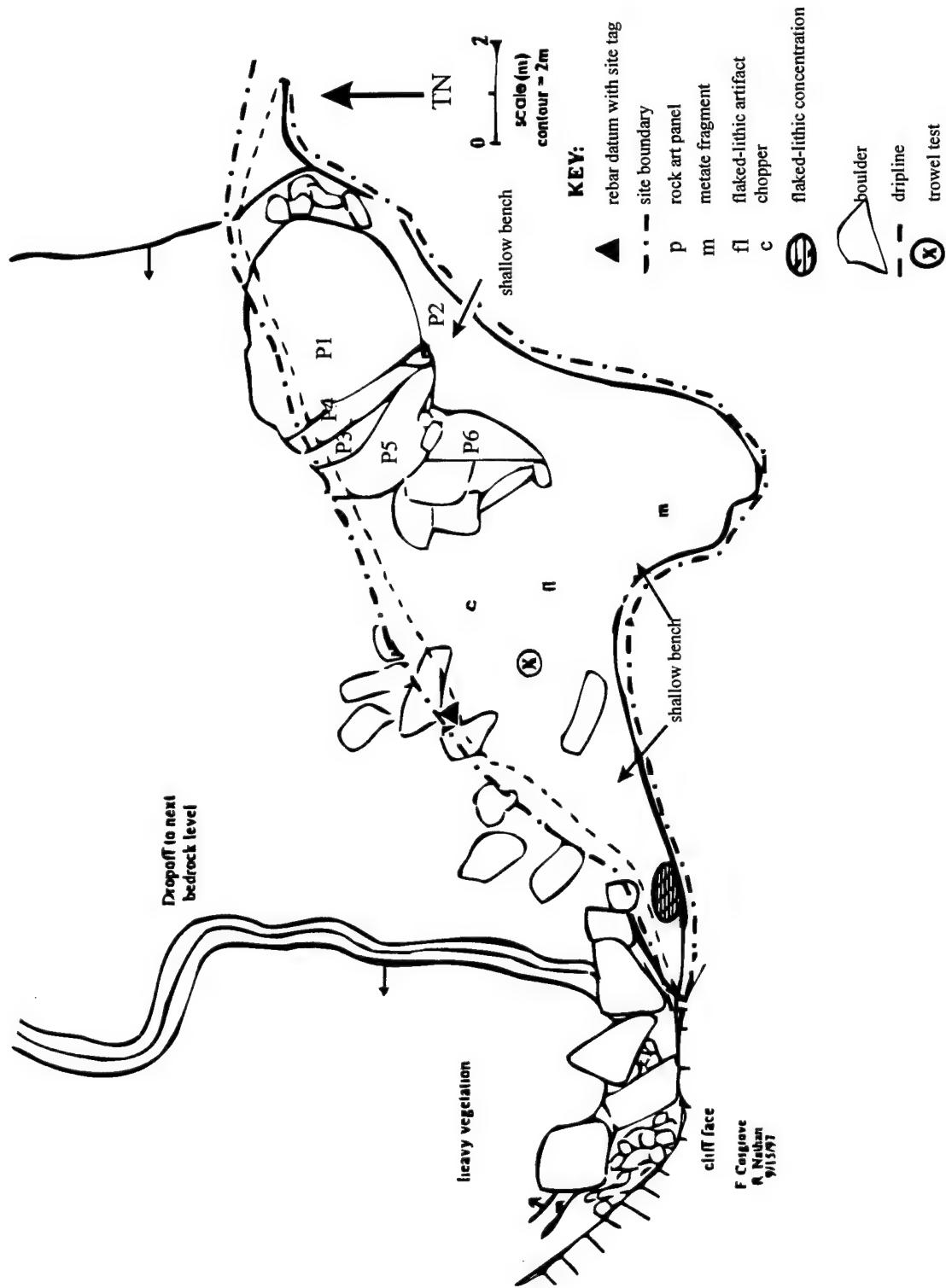
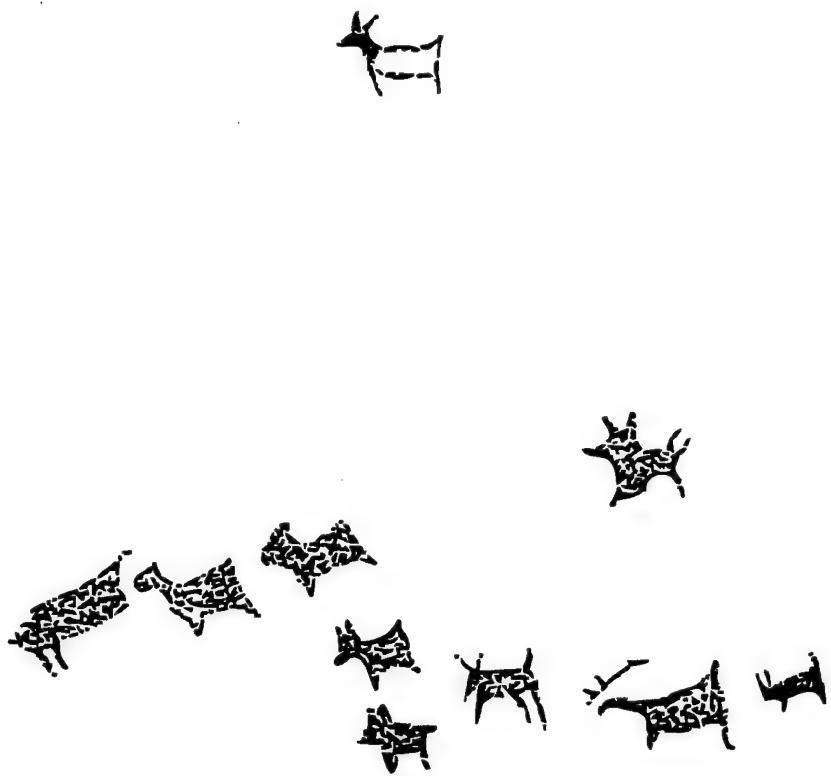


Figure 6.11. Site Map, 5PE2209

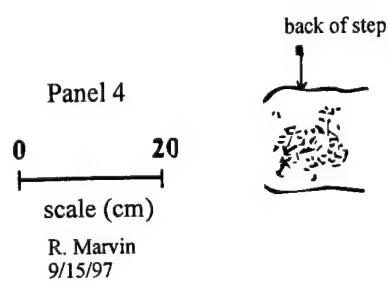
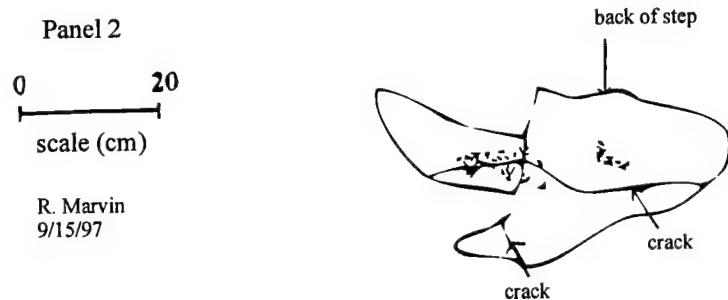


Panel 1

0 10
scale (cm)

M. Charles
9/17/97

Figure 6.12. Scaled Drawing of Rock Art Panel 1, 5PE2209.



Panel 3

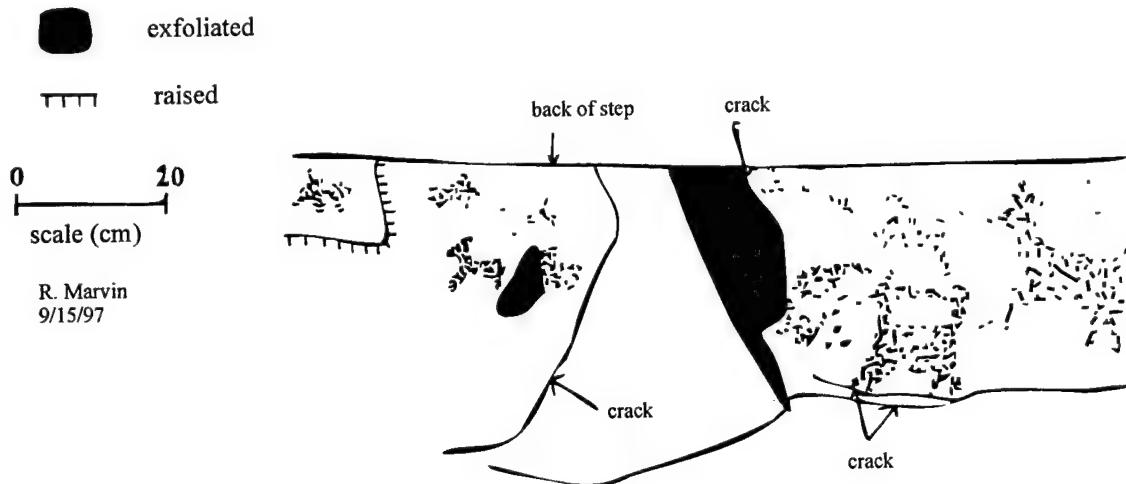


Figure 6.13. Scaled Drawing of Rock Art Panels 2, 3, and 4, SPE2209.

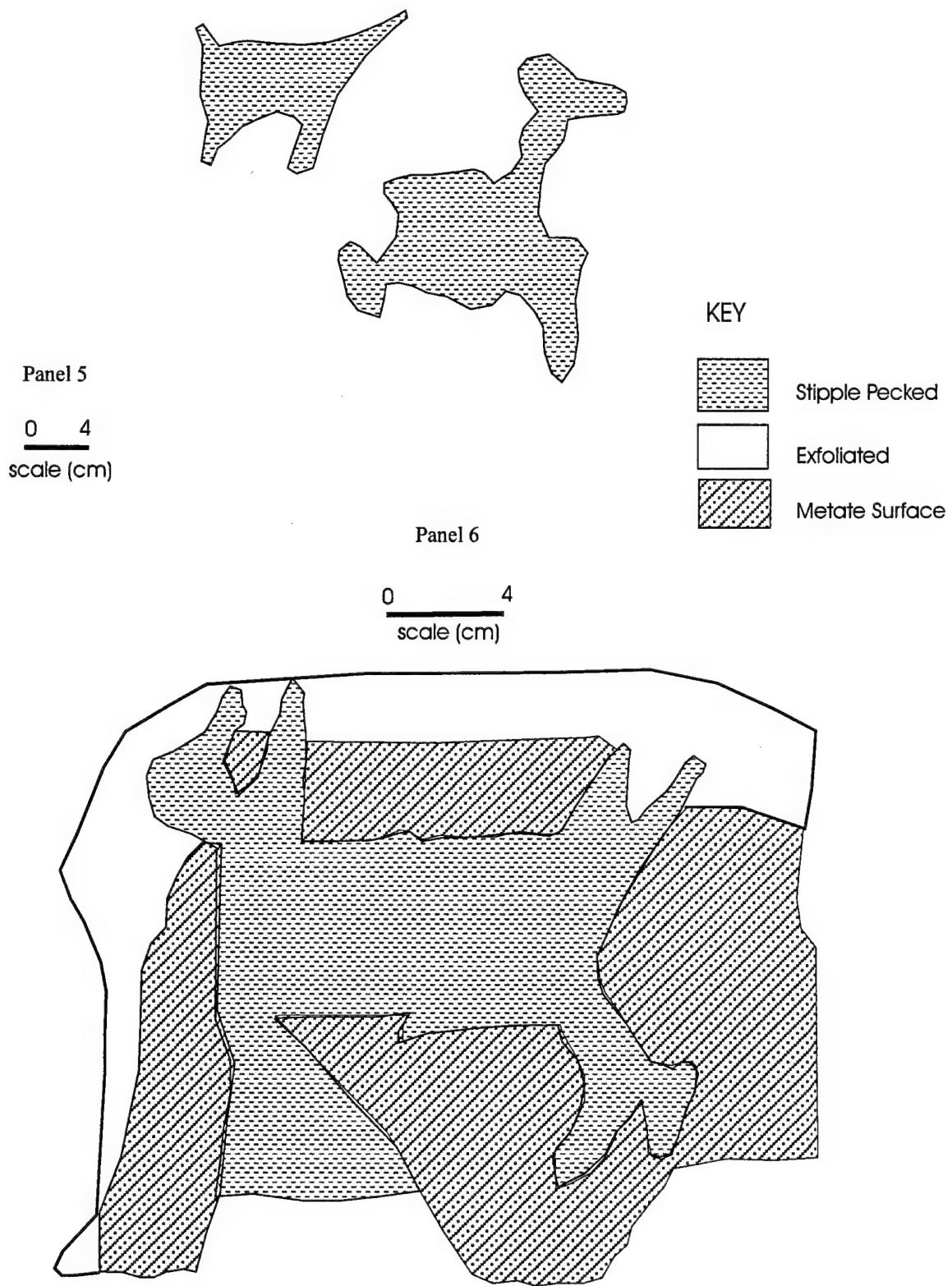


Figure 6.14 Scaled Drawing of Rock Art Panels 5 and 6, 5PE2209.

failure most likely enhanced through alluvial weathering from flowing water through the drainage. Presently, this drainage is ephemeral, with its water supply coming from stormflow and perhaps from interflow as well. The hydrology of Booth Mountain today does not appear sufficient to form this drainage, and it is suggested that the drainage was formed during a climatic regime that is unlike that of today, such as the wetter, cooler periods of the Pleistocene or very earliest Holocene.

There are several niches in the shelter that are positioned at various elevations. Sediments within the shelter's interior are the net result of endogenous roof-slab fall and smaller granular attrition from the shelter's sides and roof. Slope wash deposits, perhaps with eolian sediments, are supplied to the shelter through exterior processes. Artifacts on the surface are primarily concentrated in the westernmost niche below the dripline and within the interior of the shelter. The artifact assemblage consists of a small metate fragment, 16 flakes, a chopper, and a boulder metate with a superimposed zoomorph. A trowel test within the shelter recovered charcoal, ash, and a few small pieces of fire-cracked rock between 7-27 cm below the surface. Rodent bone and one unidentifiable mammal bone fragment were recovered from the shovel test.

A huge rectangular slab has fallen from the interior of the shelter immediately below the dripline. On this slab are four rock art panels with zoomorphs and a few geometrics (Figure 6.12 and 6.13). These panels are on the western side and the top of the boulder. The images are solid-pecked, stipple-pecked and some are outline forms. A total of twenty-seven zoomorphs are identified on this boulder. The zoomorphs are interpreted to replicate both ungulates (e.g., deer, elk, mountain sheep or goat, antelope) and canids (e.g., wolf, fox, coyote, mountain lion, bobcat). Thus, these overall images appear as a predator and prey relationship. A single zoomorph (Figure 6.14) is superimposed on a smoothed and pecked grinding surface on a detached boulder in the general vicinity of the other rock art panels. This image is an ungulate (deer?) with male genitalia.

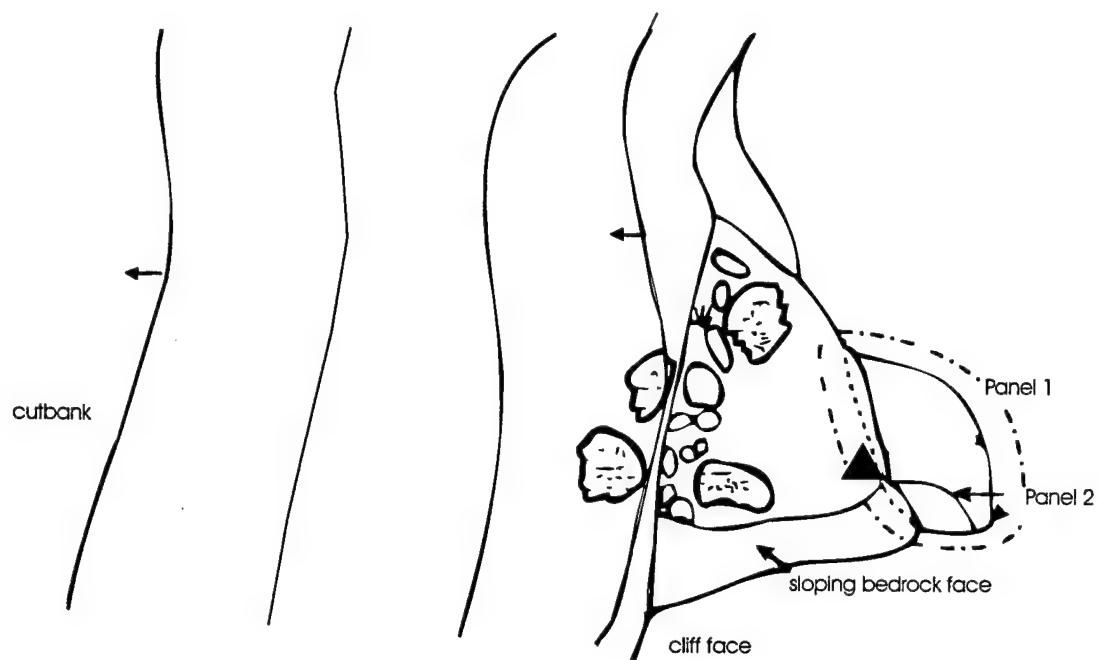
The site's temporal affiliation is not conclusive, but it is presumed that the rock art is post-Archaic. The site is recommended as eligible for nomination to the NRHP based on its potential to yield significant information under the research themes of settlement systems, paleoclimates, rock art, chronology and cultural relationships, and prehistoric economies as defined in Zier et al. (1997a, 1997b).

Management Recommendation

Avoid and protect. Fully document the rock art, and possibly test excavate to determine extent and context of subsurface deposits.

5PE2210

Site 5PE2210 (Figure 6.15) consists of a notch in a sandstone cliff that possesses two panels of vertical grooves. The site is on the east side of Turkey Creek in a low cliff face below the broad mesa overlooking Turkey Creek to the west. The cliff is at the interface



KEY



Rebar datum with site tag



Cholla



Gooseberry

0 2
TN

scale (m)



Dripline

Contour = 0.5m
9/13/97

S. Larmore



Site Boundary



Boulders

Figure 6.15. Site Map, 5PE2210.

of the alluvial terrace of Turkey Creek and the Dakota Sandstone formed from the down-cutting of this drainage. The cliff face has a "V"-shaped notch that has a slight overhang. The panels are on the vertical walls found underneath the overhang. A rebar datum with a stamped tag was placed directly in front of the overhang. Two panels contain approximately 75 nearly vertical grooves. The grooves range in length from 3 cm to 50 cm and average about 2.5 cm wide. There were no artifacts found in association with this site. The site is located in the cliff face about 15 m to the north of Recon John Shelter (5PE648) and affords the closest, easiest access to the Recon John Shelter.

The grooves may represent the results of efforts other than tool sharpening such as artistic or communicative symbols. The temporal affiliation of the site is not known, but may be related to the occupation of the Recon John Shelter. The site is recommended as eligible for nomination to the NRHP because it has the ability to yield information on settlement patterns, chronology and cultural relationships, and perhaps is of high artistic or communicative value as defined in Zier et al. (1997a, 1997b).

Management Recommendation

Avoid and protect.

5PE2211

Site 5PE2211 (Figure 6.16) is an open prehistoric site with a moderately dense scatter (1228m²) of flaked-lithic debitage and a single groundstone tool. A rebar datum with a stamped site tag was placed at the site. The site is on a northeast to southwest trending terrace below a prominent cliff of Dakota Sandstone along the west side of Turkey Creek. Turkey Creek is approximately 225 m to the east and an unnamed intermittent drainage is about 75 m from the site to the west-southwest. The site is dominated by a moderately dense scatter of talus boulders that have broken from the cliff and slid or rolled to their current positions. A concentrated scatter of flaked-lithic debitage and tools is confined to an area ringed by the talus boulders. Sixty-nine flaked-lithic artifacts and one groundstone artifact were recorded at the site. A projectile point, a beveled scraper, and the groundstone were collected (Appendix II). The groundstone is a small ground and polished tool that may have been utilized as an atlatl weight. The diagnostic projectile point is a small corner-notched of the Early to Middle Ceramic periods (A.D. 500-A.D. 1400). A shovel test placed at the site indicates a good potential for at least a shallow cultural deposit. Two flaked-lithic artifacts were recovered from 0-14 cm below the surface in the shovel test.

This site was initially recorded as a part of site 5PE321; however, during the reevaluation of this site, it was felt that the designation for 5PE321 should be reserved for the boulder rock art which is about 70 m northeast of the flaked-lithic scatter. New site forms were completed for both sites. It is recommended that site 5PE2211 is eligible for nomination to the NRHP because it has the potential to yield information on the research themes of prehistoric economies, settlement patterns, chronology and cultural relationships, technologies, and perhaps on horticulture as defined in Zier et al. (1997a, 1997b).

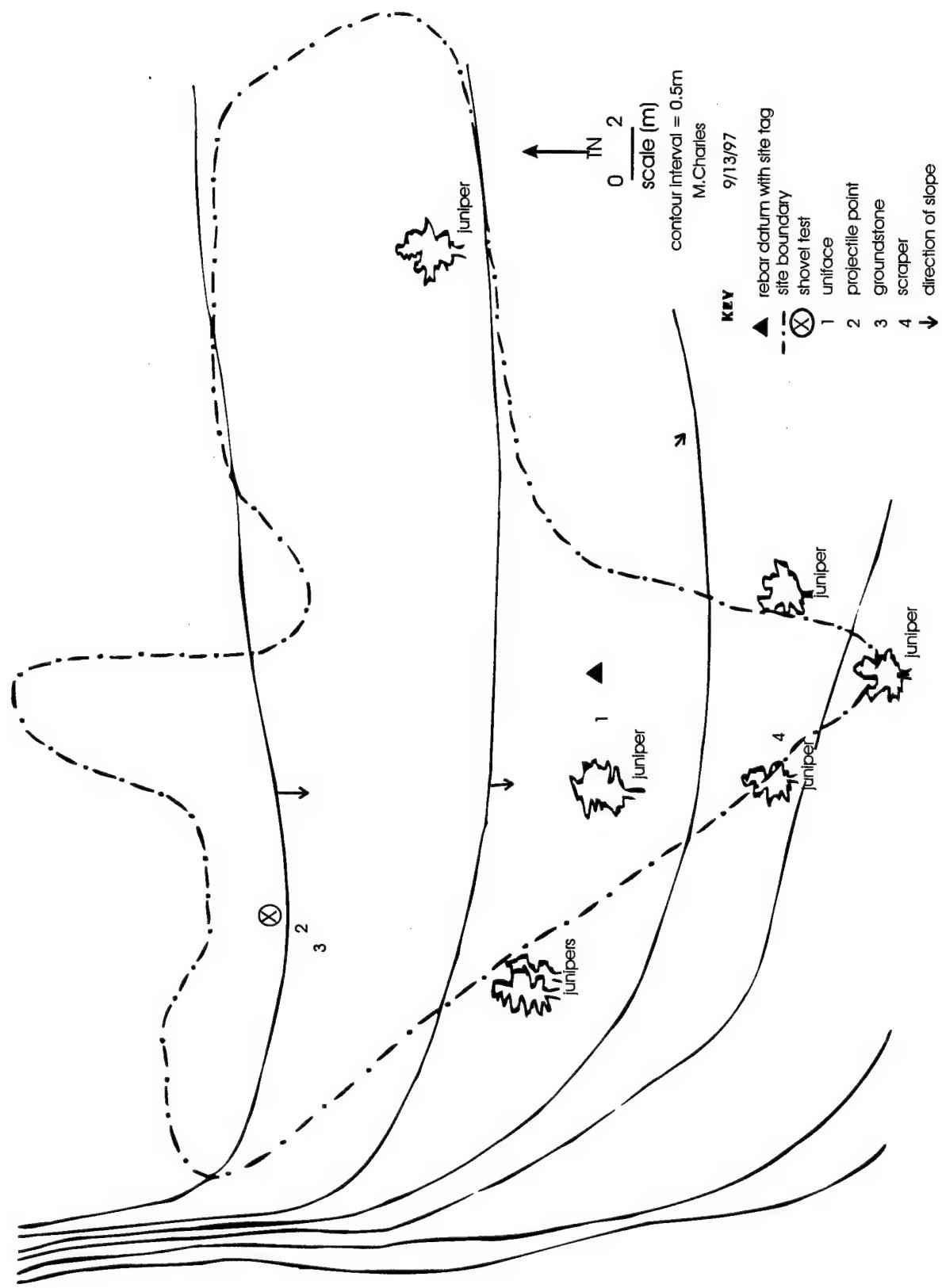


Figure 6.16. Site Map, 5PE2211.

Management Recommendation

Avoid and protect.

5EP2726

This isolated find is a large, corner-notched silicified wood projectile point (Appendix II).

5FN1547

This isolated find is a reddish brown chert projectile point (Appendix II).

Chapter 7

Summary and Management Summary

Introduction

This chapter summarizes the results of the 1997 reevaluation of 89 cultural resources on the FCMR conducted by Fort Lewis College. Additionally, general management recommendations are provided for sites within the FCMR.

Summary

Eighty-nine cultural resources within the FCMR were reevaluated by two crews from Fort Lewis College during the summer and fall of 1997. The 89 cultural resources included historic and prehistoric archeological sites within the counties of El Paso, Fremont, and Pueblo. The area included in this project covers most of six U.S.G.S. topographic quadrangle maps and is located within the numerous military training areas across the base. Many of the sites had never been verified on the ground and were merely accounts of cultural resources collected by early researchers in the area (i.e. Early and Huffman). Attempts to locate the 89 cultural resources succeeded in accurately locating and identifying 76 (85%) of the total. Of the 14 (18%) cultural resources that were not relocated, one is in an impact area that is permanently closed to civilians. The project resulted in 50 (56%) cultural resources as possessing the potential to yield significant information on the research themes defined in Zier et al.(1997a, 1997b) for the FCMR; therefore, they are recommended as eligible for nomination to the NRHP. The remaining 39 (44%), which includes the 14 sites that were not relocated, are recommended as not eligible for nomination to the NRHP. A reasonable amount of time, approximately two hours, was allotted to trying to find the sites. With the help of the PLGR, The 14 sites that we not able to locate

An additional four new sites and two isolated finds were located over the course of the reevaluation project. The four sites are all recommended as eligible for nomination to the NRHP under the research themes outlined in Zier et al. (1997a, 1997b).

The sites investigated represent most of the temporal periods identified at Fort Carson which range from the Late Paleo Indian period through the Historic Ranching period of the 1930s. With the exception of the historic military period, the cultural resources included under this reevaluation project spanned the occupation periods recognized from the current literature for Fort Carson

Sites investigated include most of the site types present at Fort Carson (Zier et al. 1997), which include open sites, open sites with architecture, rock art sites, flaked-lithic

scatters some with groundstone and ceramics, sheltered sites, and historic architectural sites. In general, it is noted that there is a paucity of historic archeological sites within our sample, which most likely represents archaeological biases toward prehistoric sites that are long since ameliorated. The historic sites from our sample include such sites as the Kansas-Denver Railroad grade, the Calcine Mill at 5PE321, Stone City, the Turkey Creek Ranch, the Andrew's Homestead, and the Gale Irrigation Ditch.

Likewise it is noted that 38 (43%) of the sites that are assigned a temporal (cultural) affiliation belong to the Ceramic period. The sample reflects a bias toward open architectural and sheltered sites particularly along Turkey Creek. Thirty-three (35%) of the total 89 prehistoric sites possess some form of architecture, 30 (34%) of the total are sheltered sites. Ten of the shelters also are listed as possessing structures, of which some are historic.

Management Discussion

The preferred and most conservative action for sites that are recommended as eligible for nomination to the NRHP is that the sites be avoided by all ground-disturbing activities, and, if necessary, these sites should be protected. In addition, other management recommendations include limited testing to determine the extent of subsurface deposits and less often, mitigation or data recovery. Limited excavation on sites 5EP1080, 5EP1345, 5PE648, and 5PE868 is recommended to mitigate the adverse effects, mostly from erosion, that are occurring at these significant cultural resources.

Historic sites 5PE325 and 5PE327, which are encompassed within the boundary of 5PE326 as it was originally recorded (Alexander et al. 1982), are not currently identified as potentially eligible resources, but should be investigated further. A cursory evaluation of the sites during the reevaluation of 5PE326 indicated that these sites may be significant historic resources.

It is our recommendation that all rock art sites be more thoroughly documented because of the surface exposure which results in inevitable chemical and physical weathering. Documentation of the rock art should include black-and-white photographs with scales, color slides with scales, tracings, test excavations, cation sampling, and infra-red photos. It is also our suggestion that all rock art sites from Fort Carson be evaluated for nomination to the NRHP under the rock art theme as a noncontiguous district as defined in Zier et al. (1997a, 1997b). Moreover, Jones et al. (1998:165) suggest that all rock art sites in Fort Carson, regardless of their potential temporal affiliation, be considered potential traditional cultural properties. A query of the database at Fort Carson identified 18 cultural properties with rock art (historic, prehistoric, and unknown) that were not included in our reevaluation project for 1997. These 18 cultural properties are included in Table 7.2. Finally, those rock art panels recorded as isolated finds should be recorded as archeological sites.

Table 7.1. Rock Art Sites Recommended for Reevaluation.

Site Number	IF/Site	Age	Rock art Type
5PE8	Site	Prehistoric	Prehistoric
*5PE95	Site	Prehistoric/Historic	Prehistoric
5PE308	Site	Prehistoric/Historic	Historic
5PE318	Site	Historic	Historic
5PE359	Site	Historic	Historic
5PE665	Site	Prehistoric	Prehistoric
5PE667	Isolated Find	Unknown	Unknown
*5PE832	Site	Prehistoric	Prehistoric
*5PE850	Site	Prehistoric/Historic	Historic
5PE856	Site	Prehistoric/Historic	Prehistoric/Historic
*5PE875	Site	Prehistoric	Prehistoric
5PE897	Site	Prehistoric	Prehistoric
5PE899	Site	Prehistoric	Prehistoric
5PE903	Site	Prehistoric/Historic	Historic
5PE1017	Isolate Find	Prehistoric/Historic	Historic
5PE1032	Site	Prehistoric	Prehistoric
5PE1038	Site	Historic	Historic
5PE1573	Site	Historic	Historic

*Sites within 5PE14, Turkey Creek Canyon Rock Art District.

It is recommended that site 5PE14, the Turkey Canyon Rock Art District, be redefined as a noncontiguous rock art district rather than as a separate spatial entity with a selected set of rock art and nonrock art sites such as it is presently defined. Rock art can be found in a variety of spatial and environmental locations and is not limited to the arbitrary boundary currently defined as 5PE14.

It is recommended that the use of site number 5PE163 be discontinued. The description of site 5PE163 is the same as that of 5PE58. The location of the plot for 5PE163 was examined, and no site fitting this description was located. The rock art drawings are identical to the rock art recorded at 5PE58.

It is recommended that site 5PE746 (Wickiup Site) be evaluated by one trained in the field of Protohistoric or Historic archeology. In our professional opinion, the site does not represent the remains of brush shelters. The site's temporal affiliation remains inconclusive due to the lack of diagnostic artifacts and the doubt surrounding the possible wickiup structures. Therefore, the site is not recommended as eligible for nomination to the NRHP. We are not trained specifically in the area of Protohistoric or Historic archeology, and because the site has been empowered—justified or not—with the status of a traditional cultural property (Jones et al. 1998) we feel that it is important that the site be evaluated by a person(s) trained to do such.

It is recommended that site 5FN503 be reevaluated. This site was not included within our list for reevaluation; however, temporally diagnostic artifacts recovered from the site indicate possible Paleo Indian, Archaic, and Ceramic period occupations in a geomorphically stable landscape context (Alexander et al. 1982:80-81). The base of a possible Eden point was collected from the site which was reported in Alexander et al. (1982:81). Alexander et al. (1982:81) state that the site is in need of complete recording. We concur and further recommend that the site be reevaluated in the near future. Finally, it is recommended that site 5EP77, which is in the Impact Area, be reevaluated by personnel authorized to enter this area.

REFERENCES CITED

Ahler, S. A.

1997 *Field Analysis System for Surface Lithic Artifacts Encountered in the Black Hills Survey Project, Pinon Canyon Maneuver Site, Colorado*. Report submitted to the Department of Sociology and Anthropology, New Mexico State University, Las Cruces. PaleoCultural Research Group, Flagstaff, AZ.

Albanese, J. P., and M. Wilson

1974 Preliminary Description of the Terraces of the North Platte River at Casper, Wyoming. In *Applied Geology and Archaeology: The Holocene History of Wyoming*, edited by M. Wilson, pp. 8-18. Report of Investigation No. 10. Geological Survey of Wyoming.

Alexander, R., J. Hartley, and T. Babcock

1982 *A Settlement Survey of the Fort Carson Military Reservation*. 3 vols. Ms. on file, Grand River Consultants, Grand Junction, CO.

Anderson, J. L.

1990 Prehistoric overview. In *An Introduction to the Archaeology of Piñon Canyon, Southeastern Colorado*, vol. II, edited by W. Andrefsky, Jr., pp. VII-1-30. Ms. submitted to the National Park Service, Rocky Mountain Regional Office, Denver.

Athearn, F. J.

1985 Land of Contrast. A History of Southeast Colorado. *Cultural Resource Series* 7, Bureau of Land Management, Denver.

Barnes, A.

1991 *An Archival and Photographic Study of World War II Temporary Wooden Buildings, Fort Carson Military Reservation, Colorado*. Ms. submitted to the National Park Service, Rocky Mountain Regional Office, Denver.

Bass, W. B. and P. Cuzco

1963 A human skeleton from Pueblo County, Colorado. *Southwestern Lore* 29(2):40-43.

Baugh, T. G.

1994 Holocene adaptations in the southern High Plains. In *Plains Indians A.D. 500-1500*, edited by K. Schlesier, pp. 264-289. University of Oklahoma Press, Norman.

Bell, Robert E.

1958 Guide to the Identification of Certain American Projectile Points. *Special Bulletin*, No. 1. Oklahoma Anthropological Society, Oklahoma City.

Benedict, J. B. and B. Olson

1978 The Mount Albion Complex. A Study of Prehistoric Man and the Altithermal. *Research Report* 1. Center for Mountain Archaeology, Ward, CO.

Buchner, A. P.

1979 *Cultural Responses to Altithermal (Atlantic) Climate along the Eastern Margins of the North American Grasslands: 5500-3000 B.C.* Ph.D. dissertation, University of Calgary.

Burns, G. R. and W. K. Killam

1983 Cultural Resource Inventory of Tank Gunnery Range Fan Number 45, Fort Carson Military Reservation, Colorado. *Cultural Resource Report* 5. Ms. on file Goodson and Associates Inc., Lakewood, CO.

Butler, W. B.

1985 *Taxonomy in Northeastern Colorado Prehistory.* Unpublished Ph.D. dissertation, University of Missouri, Columbia.

1986 *Taxonomy in Northeastern Colorado Prehistory.* Ph.D. dissertation, University of Missouri.

1990 *Cultural Resource Survey of Ten Soil Conservation Structures and the Gale Irrigation Ditch, Fort Carson Military Reservation, El Paso and Pueblo Counties, Colorado.* Ms. submitted to Army Environment, Energy and Natural Resources Division, Fort Carson, CO.

1991 *Reconnaissance Survey of a Proposed Fiber-Optic Line, Fort Carson Military Reservation, El Paso and Pueblo Counties, Colorado.* Ms.. submitted to U.S. Army 4th Infantry Division (Mech) and HQ Fort Carson, Fort Carson, CO.

1992 *Cultural Resource Investigation of Several Small Scale Projects on the Fort Carson Military Reservation, El Paso and Pueblo Counties, Colorado.* Ms. on file, National Park Service, Interagency Archeological Services-Denver, Denver

Butler, W. B., S. A. Chomko, and J. M. Hoffman
1986 The Red Creek Burial, El Paso County, Colorado. *Southwestern Lore* 52(2):6-27.

Butzer, K. W.
1982 *Archaeology as Human Ecology*. Cambridge University Press, Cambridge.

Campbell, R. G.
1969 *Prehistoric Panhandle Culture on the Chaquagua Plateau, Southeastern Colorado*. Ph.D. dissertation, University of Colorado.

1976 The Panhandle Aspect of the Chaquagua Plateau. *Graduate Studies of Texas Technical University* 11, Lubbock, TX.

Carrillo, R.
1990 Historic overview. In *An Introduction to the Archaeology of Piñon Canyon, Southeastern Colorado*, vol. III, edited by W. Andrefsky, Jr., pp. XVIII-1-45. Ms. submitted to the National Park Service, Rocky Mountain Regional Office, Denver.

Carillo, R. F., C. J. Zier, and A. M. Barnes
1991 *The Documentation of Stone City (5PE793): Historical Archaeology on the Fort Carson Military Reservation, Pueblo County, Colorado*. Centennial Archaeology, Inc., Fort Collins, CO.

Cassells, E. S.
1983 *The Archaeology of Colorado*. Second Edition. Johnson Books, Boulder.

Charles, M., P. Duke, and R. Nathan
1997a *A Cultural Resource Inventory of Portions of Booth Mountain, Fort Carson Military Reservation, Pueblo County, Colorado*. Ms. submitted to Midwest Archeological Center, Lincoln, NE.

1997b *Results of a Cultural Resource Inventory of Portions of Fort Carson Military Reservation and Test Excavation of Site 5EP2524, El Paso County, Colorado, 1996*. Draft report submitted to The Directorate of Environmental Compliance and Management, Fort Carson, CO.

Connor, M. and J. Schneck
1996 *The Old Hospital Complex (5EP1778) Fort Carson, Colorado*. National Park Service, Midwest Archeological Center, Lincoln, NE.

Dames and Moore

1978 *Fort Carson Colorado: Terrain Analysis*. Prepared by Dames and Moore, Washington D.C., under direction of Terrain Analysis Center, U.S. Army Engineer Topographic Laboratories, Fort Belvoir, VA.

Dean, J. C.

1992 *Guidelines to Required Procedures for Archaeological Field and Laboratory Work at Piñon Canyon Maneuver Site Las Animas County, Colorado*. Ms. submitted to the U.S. Army by Department of Anthropology, University of North Dakota.

Department of the Army

1948 *The National Guard Manual*. Prepared under the direction of the Chief, Army Field Forces, United States Army.

1980 *Draft Environmental Impact Statement: The Continuing Operation of Fort Carson Colorado*. Prepared by the U.S. Army in cooperation with Higginbotham an Associates, Environmental Quality Office, Fort Carson Military Reservation, Fort Carson, CO.

1984 *Facilities Engineering: Historic Preservation--Army Regulation AR 420-40*. Headquarters, Department of the Army, Washington D.C.

Dick, H. W.

1963 *Preliminary Report: Trinidad Reservoir, Las Animas County, Colorado*. Ms. on file, Midwest Archeological Center, National Park Service, Lincoln, NE.

Duke, P.

1978 *The Crowsnest Pass: a Locational Analysis*. Master's thesis, University of Calgary.

Duke, P. and M. Charles

1997 A Proposal for a Continuation of a Cooperative Agreement between Fort Lewis College and National Park Service. Title: A Class III Survey of Sections of the Fort Carson Military Reservation. Southern Colorado. Proposal submitted to National Park Service, Midwest Archeological Center, Lincoln, NE.

Duke, P. and M. Wilson

1994 Cultures of the Mountains and Plains: from the Selkirk Mountains to the Bitterroot Range. In *Plains Indians A.D. 500-1500*, edited by K. Schlesier, pp. 56-70. University of Oklahoma Press, Norman.

Early, L.
1965 Colorado State Form S:9:34 (5PE94).

Early, L. and T. Huffman
1964 Colorado Site Form S:5:3 (5PE52).

1965a Colorado Site Form S:5:6 (5PE54).

1965b Colorado Site Form S:5:7 (5PE55).

Eddy, F. W., P. Friedman, R. Oberlin, T. Farmer, D. Dahms, J. Reining, B. Leichtman.
1982 *The Cultural Resource Inventory of the John Martin Dam and Reservoir*.
Ms. on file, Corps of Engineers, Albuquerque, NM.

Eddy, F. W., R. Oberlin, and T. R. Farmer
1984 Spatial analysis of archaeological data at the John Martin Dam and Reservoir,
Southeastern Colorado. *Plains Anthropologist* 29 (103):25-40.

Eighmy, J.
1984 *Colorado Plains Prehistoric Context for Management of Prehistoric
Resources of the Colorado Plains, RP3 Documents*. Office of Archaeology
and Historic Preservation, Colorado Historical Society, Denver.

Evanoff, E., B. Burger, M. Burke, M. Dorsett, and K. Wright
1996 *Preliminary Mapping and Report of the Physiography, Geophysical Data,
Surficial Geology, and Paleontological Resources of the Fort Carson
Military Reservation, Colorado*. Ms. submitted to Midwest Archeological
Center, Lincoln, NE.

Fenneman, N.
1931 *Physiography of western United States*. McGraw Hill, New York.

Forbes, J. D.
1960 *Apache, Navajo and Spaniard*. University of Oklahoma Press, Norman.

Forbis, R. G.
1978 Some facets of communal hunting. In *Bison Procurement and Utilization: a
Symposium*, edited by L. B. Davis and M.C. Wilson, pp. 3-8. *Plains
Anthropologist Memoir* 14.

Frison, G. C., R. L. Andrews, J. M. Adovasio, R. C. Carlisle, R. Edgar
1978 *Prehistoric Hunters of the High Plains*. Academic Press, New York.

Fulgham, T. and J. Anderson

1984 Proposed Chronological Framework for the Fort Carson-Piñon Canyon Area. Contribution No. 2. *Phase I of the Fort Carson-Piñon Canyon Project*. Ms. submitted to the National Park Service, Rocky Mountain Regional Office, Denver.

Grant, M. P., and C. Zier

1987 *An Archaeological Inventory of Selected Sample Transects on the Fort Carson Military Reservation, El Paso, Fremont, and Pueblo Counties, Colorado*. Ms. on file, Centennial Archaeology, Inc., Fort Collins, CO.

Gunnerson, J. H.

1987 *Archaeology of the High Plains*. Bureau of Land Management, Denver, CO.

1989 Apishapa Canyon Archeology: Excavations at the Cramer, Snakes Blakeslee and Nearby Sites. *Reprints in Anthropology* 41. J&L Reprint Co, Lincoln, NE.

Guthrie, M. R., P. Gadd, R. Johnson, J. J. Lischka

1984 *Colorado Mountains Prehistoric Context, RP3 Documents*. Office of Archaeology and Historic Preservation, Colorado Historical Society, Denver.

Hammond, G. P. and A. Rey (eds.)

1940 *Narratives of the Coronado Expedition, 1540-1542*. University of New Mexico Press, Albuquerque.

Hartley, J. D., C. A. Rolen, T. F. Babcock, and R. K. Alexander

1983 *A Settlement Survey of the Fort Carson Military Reservation*, Vol. II: 1982 Site Investigations. Ms. submitted to the National Park Service, Rocky Mountain Regional Office, Denver.

Hayden, B.

1982 Interaction parameters and the demise of Paleo-Indian craftsmanship. *Plains Anthropologist* 27:109-123.

Huffman, T.

1965 Colorado State Form S:5:9 (5PE57).

Hunt, C. B.

1954 Pleistocene and Recent Deposits in the Denver Area, Colorado. U.S. Geological Survey Bulletin 996-C, pp. 91-140.

Hurd, C. W.

1960 *Bent's Stockade Hidden in the Hills*. Bent County Democrat, Las Animas, CO.

Hutchinson, L. A.

1990 *Archaeological Investigations of High Altitude Sites near Monarch Pass, Colorado*. Master's thesis, Colorado State University, Fort Collins, CO.

Hyde, G.

1976 *Indians of the High Plains*. University of Oklahoma Press, Norman. (1st ed. 1959).

Ireland, S. K.

1968 *Five Apishapa Focus Sites in the Arkansas Valley, Colorado*. Master's thesis, University of Denver.

Irwin-Williams, C. and H. Irwin

1966 Excavations at Magic Mountain: A Diachronic Study of Plains Southwest Relations. *Denver Museum of Natural History Proceedings* 12.

Jepson, D. A., C. J. Zier, S. M. Kalasz, and A. M. Barnes

1992 *Archaeological Survey of High Priority Parcels and Other Miscellaneous Areas on the Fort Carson Military Reservation, El Paso, Pueblo, and Fremont Counties, Colorado*. Ms. submitted to the National Park Service, Rocky Mountain Regional Office, Denver.

Jones, D. G., M. Williams, K. Stemmler, M. H. McGrath, and E. C. Winstead

1998 *Ethnohistoric and Ethnographic Information Related to the Fort Carson Military Reservation and Piñon Canyon Maneuver Site in Colorado*. Department of the Army, St. Louis, MO.

Kalasz, S., D. Jepson, C. Zier, M. Van Ness

1993 *Test Excavations of Seven Prehistoric Sites on the Fort Carson Military Reservation, El Paso and Pueblo Counties, Colorado*. Ms. submitted to the National Park Service Rocky Mountain Regional Office, Denver.

Kingsbury, L. A. and L. H. Gabel

1983 Eastern Apache campsites in southeastern Colorado: an hypothesis. In *From Micocosm to Macrocosm: Advances in Tipi Ring Investigation and Interpretation*, edited by L. B. Davis, pp. 319-325. *Plains Anthropologist Memoir* 19.

Korgel, R.

1996 *Test Excavations at Mountain Post Sports Complex Fort Carson, Colorado.* Ms. on file Midwest Archeological Center, Lincoln, NE.

Kovel, R. and T. Kovel

1992 *Kovels' Dictionary of Marks, Pottery and Porcelain 1850 - Present.* Crown Publishers, Inc. New York.

Krieger, A. D.

1964 Early man in the New World. In *Prehistoric Man in the New World*, edited by J. Jennings and E. Norbeck, pp.23-81. University of Chicago Press, Chicago.

Kuehn, D. D.

1993 Landforms and Archaeologica Site Location in the Little Missouri Badlands: A New Look at Some Well-Established Patterns. *Geoarchaeology: An International Journal* 8(4):313-332.

1998 *Results of a Reconnaissance-Level Geomorphic and Geoarchaeological Inventory of Red Creek, Fort Carson Military Reservation, Colorado.* Ms. submitted to the Midwest Archeological Center, Lincoln, NE.

Lewis, O.

1942 The Effects of White Contact upon Blackfoot Culture, with Special Reference to the Fur Trade. *American Ethnological Society Monograph* 6.

Lintz, C.

1978 Architecture and radiocarbon dating of the Antelope Creek Focus: a test of Campbell's model. *Plains Anthropologist* 23:319-328.

1984 *Architecture and Community variability within the Antelope Creek Phase of the Texas Panhandle.* Ph.D. dissertation, University of Oklahoma.

1986 The historical development of a culture complex: the basis for understanding architectural misconceptions of the Antelope Creek Focus. In *Current Trends in Southern Plains Archaeology*, edited by T. G. Baugh, pp. 111-128. *Plains Anthropologist Memoir* 21.

Lintz, C. and J. L. Anderson (eds)

1989 Temporal Assessment of Diagnostic Materials from the Piñon Canyon Maneuver Site. *Memoirs of the Colorado Archaeological Society* 4.

Lutz, B. and W. Hunt, Jr.

1979 *Models for Patterns and Change in Prehistoric Settlement-Subsistence Systems of the Purgatoire and Apishapa Highlands*. Ms. submitted to Interagency Archaeological Service, Denver.

Madole, R. F.

1989 Geomorphology and late Quaternary stratigraphy. In *Archeological Excavation of Recon John Shelter (5PE648) on the Fort Carson Military Reservation, Pueblo County, Colorado*, edited by C. J. Zier, pp. 276-288. Ms. submitted to the National Park Service, Rocky Mountain Regional Office, Denver.

1990 Geomorphology and Late Quaternary Stratigraphy. In *Archaeological Survey and Test Excavation in the Turkey Canyon Area, Fort Carson Military Reservation, Pueblo and El Paso Counties, Colorado*, edited by M. A. Van Ness, S. M. Kalasz, C. J. Zier, D. A. Jepson, M. S. Toll, R. F. Madole, and R. F. Carrillo, pp.104-123. Ms. submitted to the National Park Service, Rocky Mountain Regional Office, Denver.

Martin, C.

1980a Colorado Archaeological Survey, Site Inventory Record, 5EP77.

1980b Colorado Archaeological Survey, Site Inventory Record, 5EP154.

McHugh, T.

1958 Social behaviour of the American buffalo. *Zoologica* 43: 1-40.

Mehls, S. F. and C. J. Carter

1984 *Colorado Southern Frontier Historic Context, RP3 Document*. Office of Archaeology and Historic Preservation, Colorado Historical Society, Denver.

Mitchell, M.

1996 The Sopris Phase in regional perspective: an examination of prehistoric frontiers in southeast Colorado. Paper presented at the Annual Meeting of the Colorado Council of Professional Archaeologists, Anasazi Heritage Center, Dolores, CO.

Mueller, M. A.

1995 *User's Guide to the Fort Carson Site-Level Databases*. Ms. submitted to the National Park Service, Rocky Mountain Regional Office, Denver.

Mueller M. A. and S. A. McBride

1995 *Fort Carson Curation Notebook and Artifact Database Documentation*. Ms. on file, National Park Service, Rocky Mountain Regional Office, Denver.

Nicholson, D. S.

1975 National Register of Historic Places Inventory-Nomination Form. Indian Petroglyphs and Pictographs (Turkey Creek Canyon) 5PE14. United States Department of the Interior, National Park Service.

Nickens, P. R. (ed.)

1988 Archaeology of the Eastern Ute: A Symposium. *Colorado Council of Professional Archaeologists Occasional Papers* 1.

Peebles, A. H.

1985 Prehistoric Ceramics. In A Chronological Framework of the Fort Carson Piñon Canyon Maneuver Site, Las Animas County, Colorado, edited by C. Lintz. *U. S. Army Fort Carson Piñon Canyon Cultural Resources Project, Contribution No. 2*. Center for Archaeological Research, University of Denver, Denver, CO.

Perino, Gregory

1971 Guide to the Identification of Certain American Indian Projectile Points. *Special Bulletin* No. 4 of the Oklahoma Anthropological Society.

1968 Guide to the Identification of Certain American Indian Projectile Points. *Special Bulletin* No. 3 of the Oklahoma Anthropological Society.

Quigg, J. M.

1974 The Belly River: Prehistoric Population Dynamics in a Northwestern Plains Transition Zone. *Mercury Series* 23, Archaeological Survey of Canada.

Randall, J.

1972 Colorado State Form 5PE163.

Reeves, B. O. K.

1973 The concept of an Altithermal cultural hiatus in Northern Plains archaeology. *American Anthropologist* 75:1221-1253.

1978 Head-Smashed-In: 5000 years of bison jumping in the Alberta Plains. In Bison Procurement and Utilization: a Symposium, edited by L. B. Davis and M.C. Wilson, pp. 151-174. *Plains Anthropologist Memoir* 14.

Renaud, E. B.

1930 Unpublished notes from 1930 field season, on file at Department of Anthropology, University of Denver, Denver.

1931a Archaeological Survey of Eastern Colorado. *Department of Anthropology, University of Denver Report 1*, Denver.

1931b Investigation of Rock Shelter in Turkey Creek District, Colorado. *Science Service Research Announcement*, 59. Science Service, Washington, D.C.

1932 Archaeological Survey of Eastern Colorado: *Second Report, Department of Anthropology, University of Denver*, Denver.

1936 *Archaeological Survey of Eastern Colorado: Eighth Report--Pictographs and Petroglyphs of the High Western Plains*. Department of Anthropology, University of Denver, Denver, CO.

1942 Indian Stone Enclosures of Colorado and New Mexico. *Archaeological Series, Second Paper*. Department of Anthropology, University of Denver, Denver.

Roberts, K. and J. Schneck

1997 *Turkey Creek Ranch (5EP836) Fort Carson, Colorado*. Draft report submitted to the Midwest Archeological Center, National Park Service, Lincoln, NE.

Rockafellow, B. F.

1881 *History of Fremont County; History of the Arkansas valley - Colorado*. O. L. Baskin, Chicago.

Roe, F.

1951 *The North American Buffalo: a Critical Study of the Species in its Wild State*. University of Toronto Press, Toronto.

1955 *The Indian and the Horse*. University of Oklahoma Press, Norman.

Schlesier, K. H.

1972 Rethinking the Dismal River Aspect and the Plains Athapaskans, A.D. 1692-1768. *Plains Anthropologist* 17:101-133.

Schroeder, A. H.

1974 *A study of the Apache Indians. In American Indian Ethnohistory: Indians of the Southwest*, edited by D. A. Horr. Garland Books, New York.

Schweigert, K. P.

1987 *Selected Standing Structures Survey of the Fort Carson Military Reservation, Colorado*. Ms. on file, the National Park Service, Rocky Mountain Regional Office, Denver.

Spath, C.

1993 *City of Colorado Springs, Department of Wastewater, Proposed Test Wells on Fort Carson Military Reservation, Township 16 South, Range 66 W, Section 36, El Paso County: Class III Cultural Resource Inventory*. Ms. on file, Metcalf Archaeological Consultants, Inc., Eagle, CO.

Spielmann, K. (ed.)

1991 *Farmers, Hunters, and Colonists*. University of Arizona Press. Tucson, Arizona.

Strong, W. D.

1935 An Introduction to Nebraska Archaeology. *Smithsonian Miscellaneous Collections* 100:353-94.

Turner, C. G., II

1980 Appendix I: Suggestive dental evidence for Athabascan affiliation in a Colorado skeletal series. In *Trinidad Lake Cultural Resource Study, Part II: the Prehistoric Occupation of the Upper Purgatoire River Valley*. Ed. C.E. Wood and G.A. Bair. Ms. on file, Interagency Archaeological Services, Denver, CO.

Van Ness, M. A., S. M. Kalasz, C. J. Zier, D. A. Jepson, M. S. Toll, R. F. Madole, and R. F. Carrillo

1990 *Archaeological Survey and Test Excavation in the Turkey Canyon Area, Fort Carson Military Reservation, Pueblo and El Paso Counties, Colorado*. Ms. on file, the National Park Service, Rocky Mountain Regional Office, Denver.

Vawser, A.

1996 Instruction on the use of the GPS.

Vickers, J. R.

1994 Cultures of the Northwestern Plains: from the Boreal Forest edge to Milk River. In *Plains Indians A.D. 500-1500*, edited K. Schlesier, pp. 3-33. University of Oklahoma Press, Norman.

Wallace, E. and A. Hoebel
1952 *The Comanches*. University of Oklahoma Press, Norman.

Watts, H. K.
1971 *The Archaeology of the Avery Ranch Site on Turkey Creek, Southeastern Colorado*. Master's thesis, University of Denver.
1975 The Avery Ranch site. *Southwestern Lore* 41:15-27.

Weber, K. R.
1990 Ethnohistory of the Piñon Canyon Maneuver Site. In *An Introduction to the Archaeology of Piñon Canyon, Southeastern Colorado, Vol. III*, edited by W. Andrefsky, Jr., pp. XVII-1-28. Ms. submitted to the National Park Service, Rocky Mountain Regional Office, Denver.

Weimer, M.
1995 Predictive modeling and cultural resource management: an alternative view from the Plains periphery. In *Beyond Subsistence: Plains Archaeology and the Postprocessual Critique*, edited by P. Duke and M. Wilson, pp. 90-109. University of Alabama Press, Tuscaloosa.

Wheat, J. B.
1972 The Olsen-Chubbuck Site: A Paleo-Indian Bison Kill. *Society for American Archaeology Memoir* 26.

Whittemore, L. R.
1967 *An Illustrated History of Ranching in the Pikes Peak Region*. Dentan-Berkeland Printing CO., Colorado Springs, CO.

Withers, A. M.
1954 Reports of Archaeological Fieldwork in Colorado, Wyoming, New Mexico, Arizona, and Utah in 1952 and 1953 -- University of Denver Archaeological Fieldwork. *Southwestern Lore* 19:1-3.
1964 *An archaeological survey of northwestern Pueblo county, Colorado*. Ms. on file, Department of Anthropology, University of Denver.

Wood, C. E. and G. A. Bair
1980 *Trinidad Lake Cultural Resources Study, Part II: The Prehistoric Occupation of the Upper Purgatoire River Valley, Southeastern Colorado*. Ms. on file, Interagency Archaeological Services, Denver, CO.

Wood-Simpson, C.

1976 *Trinchera Cave: A Rock Shelter in Southeastern Colorado*. Master's thesis, University of Wyoming.

Zier, C. J.

1984 *An Archaeological Inventory of the Red Creek Parcel on the Fort Carson Military Reservation, Colorado*. Ms. submitted to the National Park Service, Rocky Mountain Regional Office, Denver.

Zier, C. J. (editor)

1989 *Archeological Excavation of Recon John Shelter (5PE648) on the Fort Carson Military Reservation, Pueblo County, Colorado*. Ms. submitted to the National Park Service, Rocky Mountain Regional Office, Denver.

Zier, C. J. and S. M. Kalasz

1985 *Archaeological Survey and Test Excavations in the Multi-Purpose Range Complex Area, Fort Carson Military Reservation, Colorado*. Ms. submitted to the National Park Service, Rocky Mountain Regional Office, Denver.

1991 Recon John Shelter and the Archaic-Woodland transition in southeastern Colorado. *Plains Anthropologist* 135:111-138.

Zier, C. J., S. M. Kalasz, D. A. Jepson, S. A. Brown, M. W. Painter, and K. Puseman

1996 *Archaeological Survey, Site Documentation, and Test Excavations Conducted During the 1991 and 1993 Field Seasons on the Fort Carson Military Reservation, El Paso, Pueblo, and Fremont Counties, CO*. Ms. submitted to the National Park Service, Rocky Mountain Regional Office, Denver.

Zier, C. J., J. H. Altschul, M.K. Kelly, M. R. Rose, K. P. Schweigert, and K. R. Weber

1987 *Historic Preservation Plan for Fort Carson Military Reservation, Colorado*. Ms. on file, the National Park Service, Rocky Mountain Regional Office, Denver.

Zier, C. J., S. M. Kalasz, A. H. Peebles, M. A. Van Ness, and E. Anderson

1988 *Archaeological excavation of the Avery Ranch Site (5PE56) on the Fort Carson Military Reservation, Pueblo County, Colorado*. Ms. on file, the National Park Service, Rocky Mountain Regional Office, Denver.

Zier, C. J., S. M. Kalasz, M. A. Van Ness, A. H. Peebles, and E. Anderson

1990 The Avery Ranch site revisited. *Plains Anthropologist* 128:147-173.

Zier, C. J., M. W. Painter, K. P. Schweigert
1997 *National Register of Historic Places Multiple Property Documentation*. Ms. on file, the National Park Service, Denver.

Zier, C. J., K. P. Schweigert, M. W. Painter, M. A. Mueller, and K. R. Weber
1997 *Cultural Resource Management Plan for Fort Carson Military Reservation, Colorado. Vol I and II*. Ms. on file, the National Park Service, Rocky Mountain System Support Office, Denver.

Appendix I

**(omitted due to sensitive site locational
information)**

Appendix II

(Artifact Analyses)

Artifact Analyses

By:
Sean Larmore
and
Randy Nathan

Introduction

Flaked-Lithic Artifact Analysis

Flaked-lithic artifacts were divided into the following categories: bifaces, flake tools, cores, blocks, and split pebbles, complete flakes, and broken debitage. These are the prescribed categories in the PCMS manual (Dean 1992), and in Ahler (1997). All flaked-lithic artifacts were recorded under these categories.

Analysis of the collected flaked-lithic artifacts from the 1997 field season was conducted under the guidelines set forth by Dean (1992) and the revisions made by Ahler (1997). Measurements were made from the maximum length, width, and thickness whenever possible; weight was taken on complete specimens only. Descriptive terms for morphological attributes of bifaces were taken from Lintz and Anderson (1989). Haft measurements, such as neck width, neck height, haft length, and base width were measured when possible regardless of whether or not the haft element was complete. The artifacts were cataloged and attribute analysis was recorded on the appropriate PCMS/Fort Carson forms.

Flaked-lithic tools

Drills and preforms were compared to illustrations from the literature of Fort Carson and surrounding regions. Primarily, the collected projectile points were compared to Fulgham and Anderson (1984) and Lintz and Anderson (1989) for the PCMS/Fort Carson. Additionally, reports from Fort Carson were used for comparison which include Alexander et al. (1982), Hartley et al. (1983), Jepson et al. (1992), Kalasz et al. (1993), Van Ness et al. (1990), Zier and Kalasz (1985), and Zier et al. (1996). On occasion, other sources were consulted that include the following: Bell (1958), Gunnerson (1987), Irwin-Williams and Irwin (1966), and Perino (1971).

Diagnostic attributes, including overall size and hafting morphology (stemmed or flanged, base shape, tang, and shoulder characteristics), provided a visual comparison to determine similarities among projectile point types. As with any nonstatistical projectile

point comparison, the results are somewhat intuitive. The projectile points were assigned relative dates based upon morphological similarities to projectile points from chronometrically dated contexts. Many of the projectile points collected in 1997 were from sites with previous projectile point collections. All the projectile points from each site were referenced and then compared to establish a base-line chronology for the site. Other variables such as the presence of ceramics, groundstone, and structures, were taken into account in this temporal assessment.

The discussion of flaked-tool analysis is organized chronologically within each of the three counties.

5EP143

Specimen: 5EP143.74b (Figure II.1a)

This is a very small, straight flanged, but ovate projectile point, manufactured from maroon chert. It is nearly complete, missing only the very tip of the blade element. The blade edges are straight and unserrated. The point is plano-convex in cross-section. The shoulders are very slightly rounded, the tangs are rounded, and the base is concave and unground. The flange is as wide as the shoulders.

Comparisons:

From the Fort Carson study area, Types II-B, Specimen I (Hartley et al. 1983:Figure 3.55) and Type 4, Specimen H from 5PE868 (Kalasz et al. 1993:Figure 9) are similar in size and overall morphological characteristics. Hartley et al. (1983) place this projectile point type in the Late Prehistoric period (A.D. 1000-A.D. 1500), while Kalasz et al. (1993) place it within the Early Ceramic period.

Projectile Points Previously Collected

Projectile points previously collected from 5EP143 include a Type VIII Paleo or Archaic projectile point (Alexander et al. 1982:Figure 4.3), a Type II-E (Hartley et al. 1983: Figure 3.55), which is dated to the Late Prehistoric period, a Type IV-A (Hartley et al. 1983: Figure 3.56), which is dated to the Plains Woodland period, a Type IV-E (Hartley et al. 1983:Figure 3.56), an undated class, and seven fragmentary projectile points that were deemed unclassifiable. Cord-marked ceramics were collected from the site both in 1982 and 1997.

Chronology

Based upon the presence of cord-marked ceramics and the numerous projectile points it is fairly certain that this site is affiliated with the Middle Ceramic to Late Prehistoric periods. The projectile point assemblage generally consists of small, well-made flange stem varieties. The Paleo/Archaic projectile point fragment recovered in 1982 may represent a curated artifact.

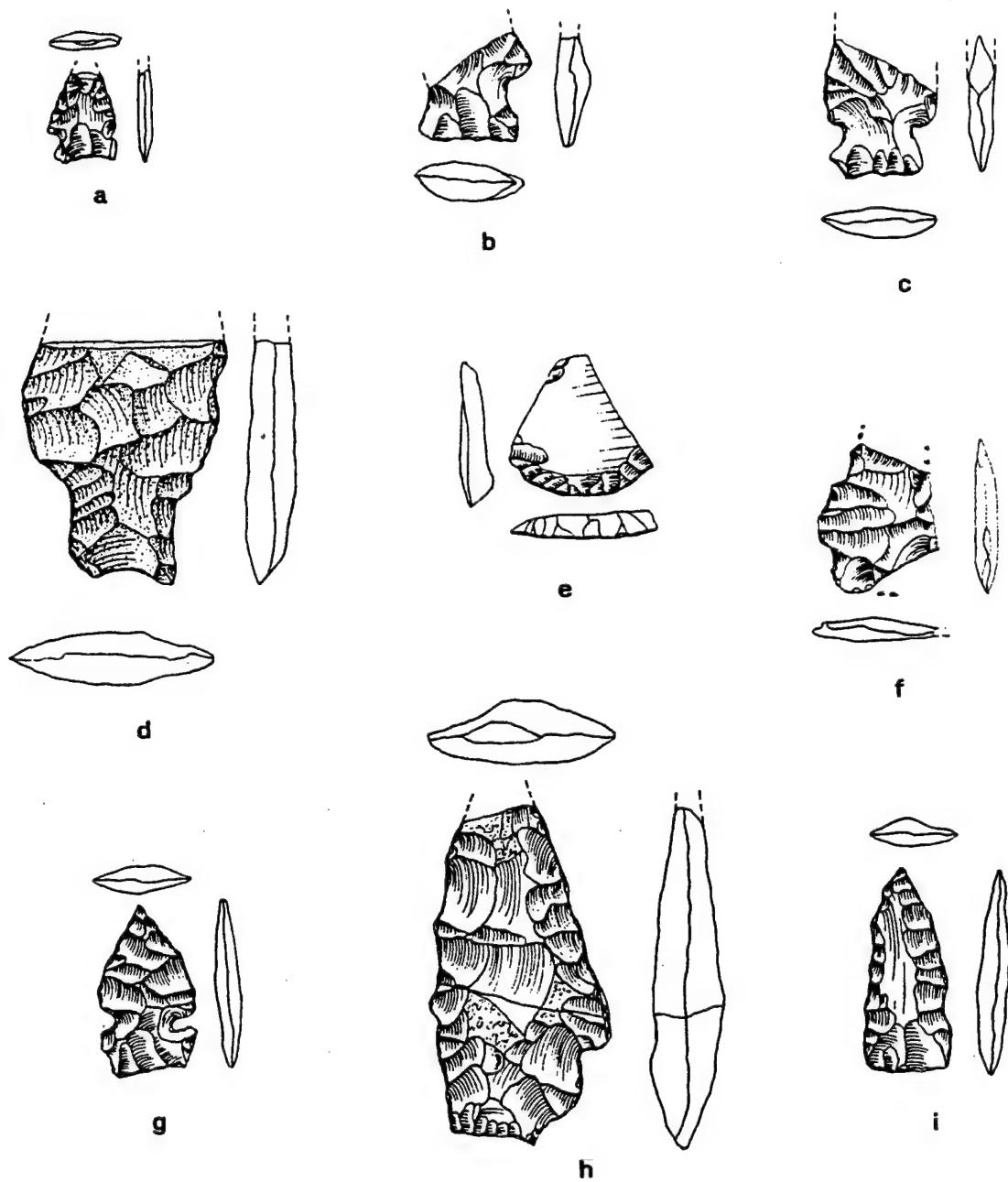


Figure II.1 Flaked-lithic artifacts. a (5EP143.74b), b (5EP160.9a), c (5EP160.9b), d (5EP160.9c), e (5EP160.9d), f (5EP160.9e), g (5EP1080.84b), h (5EP1080.84c), i (5EP1080.84d).

5EP160

Specimen: 5EP160.9a (Figure II.1b)

This projectile point was probably broken during notching and was not well thinned. It is manufactured from a thermally altered white chert. A diagonal-hinge fracture runs from the unfinished notch to approximately the middle of the blade element. The extant hafting element exhibits an expanding stem with a straight base. The hafting margin exhibits a shallow notch, sloping shoulder, and a rounded tang.

Comparisons:

Similarities between this specimen and the available projectile point illustrations from Fort Carson and the PCMS are vague. Category P35 projectile points in Lintz and Anderson (1989:Figure 4.27), dated from 1000 B.C.-A.D. 1200, best resemble this specimen.

Specimen: 5EP160.9b (Figure II.1c)

This medium-sized projectile point is broken diagonally across the blade element. It has an expanding stem. The waxy feel and pinkish hue of the point imply thermal alteration of the original white chert. The extant blade margin is serrated. The shoulders are rounded but abrupt, and the base is slightly concave with rounded tangs. The point is plano-convex in cross-section.

Comparisons:

Projectile points in Category P35 in Lintz and Anderson (1989:Figure 4.27), which is dated from 1000 B.C.-A.D. 1200 best resembles this specimen. Additionally, Type 5 (Jepson et al. 1992:Figure 10:), which is dated from 1000 B.C.-A.D. 1200, and Type 8, Specimen A (Zier et al. 1996:Figure 6), which is dated to the Middle Ceramic period are similar.

Specimen: 5EP160.9c (Figure II.1d)

This specimen is a possible preform. It is broken horizontally across the blade element, has sharply sloping shoulders and an expanding stem that terminates in distended, rounded tangs. The base is concave and ground. The raw material is a pink quartzite (possibly heat-altered). This specimen resembles points from the McKean Complex.

Specimen: 5EP160.9d (Figure II.1e)

A broken, beveled end scraper was collected which resembles scrapers affiliated with Plains Woodland complexes; however, it is not a temporally sensitive artifact (Gunnerson 1987:41). The variegated chert scraper has a beveled working edge along one side of the triangular-shaped flake. Use wear is not macroscopically evident.

Specimen: 5EP160.9e (Figure II.1f)

This point was not typed due to the absence of diagnostic traits.

Projectile Points Previously Collected

A Class VII projectile point was collected (Alexander et al. 1982:Figure 4.3) and grossly dated to the Early Archaic period.

Chronology

The available literature for the FCMR projectile point types shows no good comparisons to the points recovered from 5EP160. 5EP160 may represent an anomaly for the FCMR. Based on the 1997 assemblage, this site is tentatively assigned a general date from the Late Archaic to the Early Ceramic periods, although ceramics have not been documented from this site.

5EP1080 (Winterfat Site)

Specimen: 5EP1080.84b (Figure II.1g)

This projectile point is small, roughly triangular in shape, and is manufactured from white chert. It has a contracting flange. The tip is very sharp, the cross-section is bi-convex, and it has recurve blade edges. The shoulders are rounded, the tangs are abrupt, and the base is straight and unground.

Comparisons:

Although this specimen has a contracting flange, the projectile point most accurately fits within Category P83 from Lintz and Anderson (1989:Figure 4.44 and 4.45). It is also similar to Washita (Bell 1958:Plate 49) and to a lesser extent the Reed (Bell 1958:Plate 38) types. From the Fort Carson study area, the projectile point best resembles Type 7 (Van Ness et al. 1990: figure 25), Type 11 (Zier et al. 1996: Figure 6), Type II-B (Alexander et al. 1982: Figure 4.2), Type II-C Specimen 5 (Hartley et al. 1983:Figure 3.55), Type 15 (Jepson et al. 1992:Figure 12), Type 5 (Kalasz et al. 1993:Figure 9) and Type I from The Avery Ranch site (Zier et al. 1988:Figure 44). All these are dated from the Late Early Ceramic to the Late Prehistoric periods (A.D. 750-1650).

Specimen: 5EP1080.84c (Figure II.1h)

This large, stemmed biface or knife exhibits well-patterned flaking. The tip is broken. It is manufactured from dark yellow to light brown silicified wood. The biface is in two pieces. There is use wear along both blade margins and along the broken distal end.

Specimen: 5EP1080.84d (Figure II.1i)

This is an unbroken, elongate, triangular preform manufactured from a yellow fossiliferous chert. A possible beginning notch is evident along one margin.

Projectile Points Previously Collected

A Type 15 projectile point (Jepson et al. 1992:Figure 12), which Jepson et al. (1992) date from A.D. 750 to A.D. 1650 was recovered during the original inventory. Four other

projectile points are mentioned in the original site form, but are not discussed in the literature.

Chronology

Relying on projectile points and cord-marked ceramics, Jepson et al. (1992:Table 3) date this site to the Late Early to Middle Ceramic periods. Specimen 5EP1080.84b, which was collected in 1997, supports this temporal affiliation. The ceramics collected in 1988, which include plain wares may range more generally from the Early to Middle Ceramic periods (Jepson et al. 1992:214).

5EP1192 (Windy Ridge)

Specimen: 5EP1192.89b (Figure II.2a)

This artifact is a retouched bifacial-thinning flake possibly utilized as an expedient tool. The raw material is a maroon dendritic chert.

Specimen: 5EP1192.89c (Figure II.2b)

This unnotched, triangular projectile point is manufactured from a white chert with red inclusions, which may result from heat treating of the chert. Although the extreme tip is missing, the point is considered complete enough for a length measurement. The point is sharp (even with partial breakage), is plano-convex in cross-section, and has slightly convex blade edges. The base is straight and unground with rounded tangs.

Comparisons:

This point is especially similar to Fresno projectile points illustrated in Gunnerson (1987:Appendix 1:Plate 22). Additionally, these projectile points are similar to Type I-C Specimen E, in Alexander et al. (1982:Figure 4.2), which is dated from A.D. 1000-A.D. 1800, Type I Specimens B and C in Hartley et al. (1983:Figure 3.55), which is dated from A.D. 1000-A.D. 1800, and Category P49 in Lintz and Anderson (1989:Figure 4.32), which is dated from A.D. 800-A.D. 1750.

Specimen: 5EP1192.89d (Figure II.2c)

This nearly complete projectile point possesses a straight flange. Only the extreme tip is missing. The raw material is a dark grey chert. There is an absence of interior thinning scars on the ventral surface. The point is inferred to have had a sharp tip. It has straight to convex blade edges, and is plano-convex in cross-section. The shoulders are abrupt, the flanges are straight with rounded tangs, and the base is straight and unground. The notches are asymmetrical.

Specimen: 5EP1192.89e (Figure II.2d)

This small, nearly complete, triangular projectile point is manufactured from a light-pink chert. The point is very sharp. The blade element is plano-convex in cross-section with straight blade edges. The shoulders are abrupt, and the flange is straight to very slightly

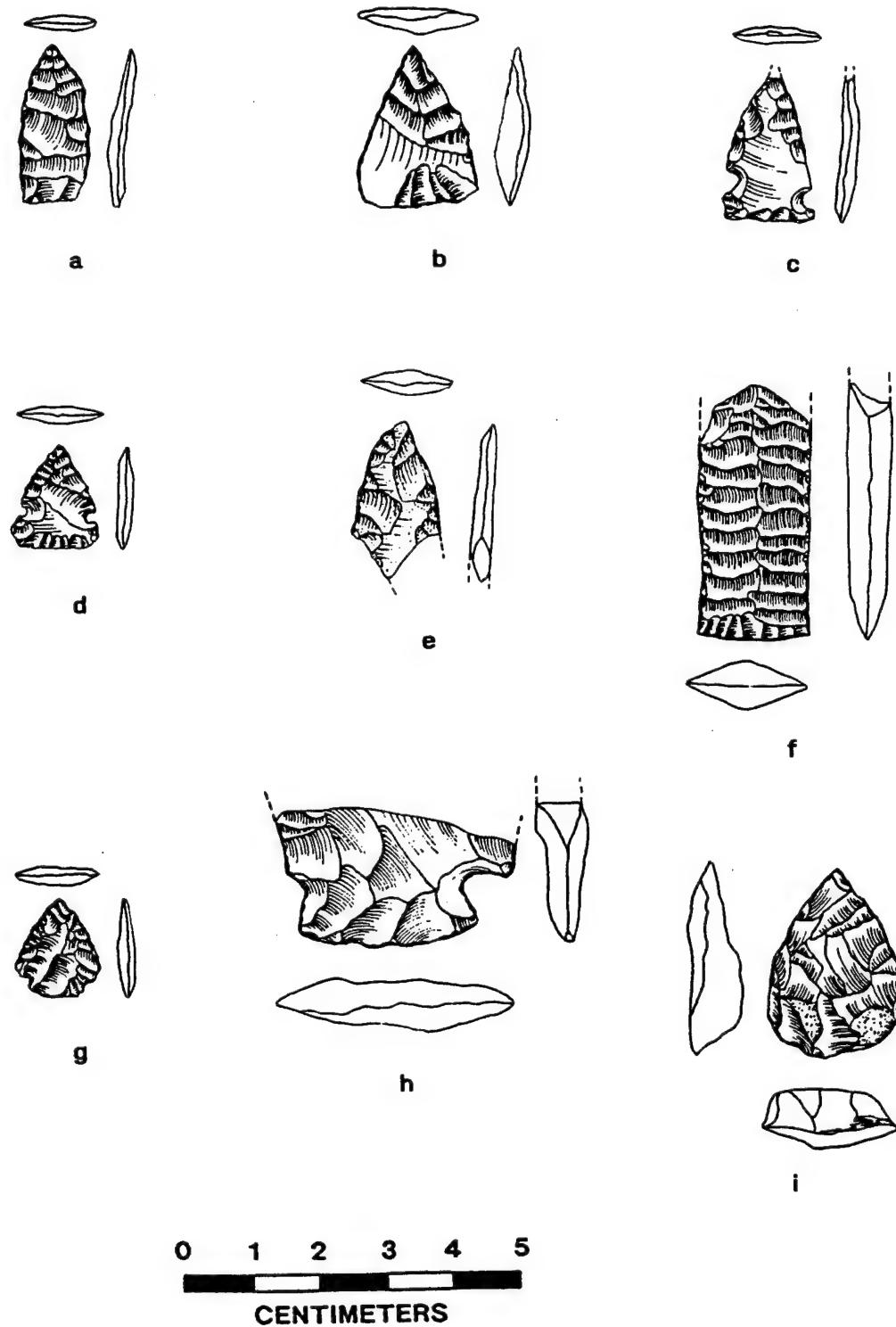


Figure II.2 Flaked-lithic artifacts. a (5EP1192.89b), b (5EP1192.89c), c (5EP1192.89d), d (5EP1192.89e), e (5EP1192.89f), f (5EP1345.43b), g (5EP1696.79a), h (5EP1696.79b), i (5EP1696.79c).

expanding. The tangs are indeterminate due to possible impact fracturing. The base is slightly concave and unground.

Specimen: 5EP1192.89f (Figure II.2e)

Due to its fragmentary nature, this projectile point was not classified.

Comparisons:

Specimens 5EP1192.89d and 5EP1192.89e resemble Reed (Bell 1958:Plate 38) and Washita projectile points (Bell 1958:Plate 49). Within the FCMR similarities exist among Type II-B (Alexander et al. 1982:Figure 4.2), Type II-C Specimen 5 (Hartley et al. 1983:Figure 3.55), Type 7 (Van Ness et al. 1990:Figure 25), Type 15 (Jepson et al. 1992:Figure 12), Type 5 (Kalasz et al. 1993:Figure 9), Type 1 from The Avery Ranch site (Zier et al. 1988:Figure 44), and Type 11 (Zier et al. 1996:Figure 6). Specimens in Category P83 (Lintz and Anderson 1989:Figures 4.44 and 4.45) compare favorably with these projectile points. All projectile point types date from the Late Middle Ceramic through Late Prehistoric periods.

Previous Projectile Point Collections

Previous projectile points collected from 5EP1192 include two Type 15 (Jepson et al. 1992:Figure 12) small-sized, stemmed projectile points, which are dated from A.D. 750-1650 and are similar to those collected in 1997. In addition, one Type 17 (Jepson et al. 1992:Figure 12) unstemmed point, which is dated from A.D. 1000-A.D. 1750, and three unclassified points (Jepson et al. 1992:147) were previously collected.

Subsequently, one Type II, barbed expanding stem (Kalasz et al. 1993:Figure 9) which is dated to the Early Ceramic period; one Type 8 (Kalasz et al. 1993:Figure 10) classified as an unstemmed triangular and which is dated to the Middle Ceramic period, and one Type 9 fragment (Kalasz et al. 1993:Figure 10) were collected during testing.

Chronology

Based on the presence of groundstone, ceramics, and the consistent projectile point morphologies, the site is assigned to the Middle Ceramic to Late Prehistoric periods. The earlier period is supported by an uncalibrated radiocarbon age of 840 ± 70 B.P. (Beta 40665 [Kalasz et al. 1993]).

5EP1345

Specimen: 5PE1345.43b (Figure II.2f)

This lanceolate projectile point exhibits a flaked-lithic technology consistent with that of the late Paleo Indian period. The point is collaterally flaked, and the hafting element is ground along the margins and base. The base is straight to very slightly convex. The blade margins are parallel, and the point is diamond-shaped in cross-section. The raw material is light brown chalcedony. The haft element is discernible by the ground edges.

Comparisons:

The study area has produced only one similar projectile point, Type IX-A from 5FN503 (Alexander et al. 1982:Figure 4.3). Category P3 specimens from the PCMS (Lintz and Anderson 1989:Figure 4.9) also exhibits collateral flaking and straight bases. The point fragment is consistent with Eden points as described in Perino (1971:Plate 15) and Gunnerson (1987:Appendix 1).

Projectile Points Previously Collected

A Hanna projectile point was recovered in 1990 which is associated with the Middle Archaic McKean Complex (Jepson et al. 1992:Figure 9). In addition, one unidentifiable ceramic was collected in 1997.

Chronology

The presence of these temporally discrete artifacts suggests a multiple occupation of this rock shelter site from the Late Paleo Indian into the Ceramic periods. The Eden projectile point was recovered from a buried context, albeit a shallow one. The temporal disparity could also be the result of artifact curation.

5EP1696

Specimen: 5EP1696.79a (Figure II.2g)

This small, straight-stemmed, finely flaked projectile point is manufactured from a yellow-brown chert. It has a sharp tip, convex blade edges, and is plano-convex in cross-section. The shoulders are rounded, and the base is convex. The stem element is extremely small.

Comparisons:

Category P81 projectile points recovered from the PCMS resemble this specimen (Lintz and Anderson 1989:Figure 4.35). These points are dated from 100 B.C.-A.D. 900. Alexander et al.'s Class IV (1982:Figure 4.2) exhibits attributes similar to the specimen and according to these authors (Alexander et al. 1982:96) dates from the Plains Woodland period (A.D. 1-A.D. 1000). Zier et al.'s Type 10 (1996:Figure 5) projectile points are almost identical comparisons. This is not surprising since the Type 10 category is derived from points collected from the site in 1991. This projectile point type is dated to the Early Ceramic period. This temporal association is based on subsurface projectile points recovered from the Recon John Shelter (Zier 1989:Figure 32).

Specimen: 5EP1696.79b (Figure II.2h)

This broken biface is manufactured from yellow silicified wood. The extant haft portion has an expanding stem with an extended shoulder and a straight base. There is retouch opposite the complete notch which indicates the hafting element was abandoned for a different function. The biface was possibly broken during use.

Specimen: 5EP1696.79c (Figure II.2i)

This ovoid, multi-functional tool was used as an end scraper, a side scraper, and as a burin. It is manufactured from red chert that was possibly thermally altered. Small portions of cortex are visible. Use wear and retouching are evident. A deep, pitted-flake scar on the ventral surface may be the result of thermal alteration as well.

Specimen: 5EP1696.79d

This broken preform is manufactured from maroon chert. The preform exhibits spalls which may be the result of thermal alteration. Convex blade edges and the overall small size suggests an intended form similar to the projectile points from the site.

Projectile Points Previously Collected

Four projectile points were collected during surface inventory in 1991 (Zier et al. 1996). Three of the projectile points (Zier et al. 1996:Figure 6) are small corner-notched projectile points that are believed to date primarily to the Early Ceramic period but which also occur in the later part of the Late Archaic period (Zier et al. 1996:106). The fourth point is unclassified, but the authors suggest it is a Late Archaic period type (Zier et al. 1996:108). The small, finely manufactured, corner-notched projectile point from 1997 fits morphologically with the previously collected corner-notched points, although we suggest is perhaps better placed in the Middle Ceramic period.

Chronology

The projectile points recovered from 5EP1696 place the site in an Early- to Middle-Ceramic period context. Two pieces of Category 3 (Zier et al. 1996:141) cord-marked ceramics and two groundstone were collected in 1991. These ceramics are generally associated with the Middle Ceramic period (Zier et al. 1996:143).

5EP2726 (IF)

Specimen: 5EP2726.1a (Figure II.3a)

This specimen is a fragmentary projectile point manufactured from a yellow-brown silicified wood. There are snaps removing one complete barb, half of the other, and the very tip of the blade. In cross-section the point is bi-convex with straight blade edges that are unserrated. The stem is expanding with abrupt to rounded tangs, and an indented base that is unground. A basal thinning-flake scar terminates in a step fracture.

Comparisons:

Based on the indented base and inferred extended barbs, the projectile point is similar to Type V-D Specimen F, which is dated from the Middle to Late Archaic periods (Alexander et al. 1982:Figure 4.3). In addition, Type 1 Specimen A (Zier et al. 1996:Figure 5), which dates from the Early to Middle Archaic period, resembles the specimen.

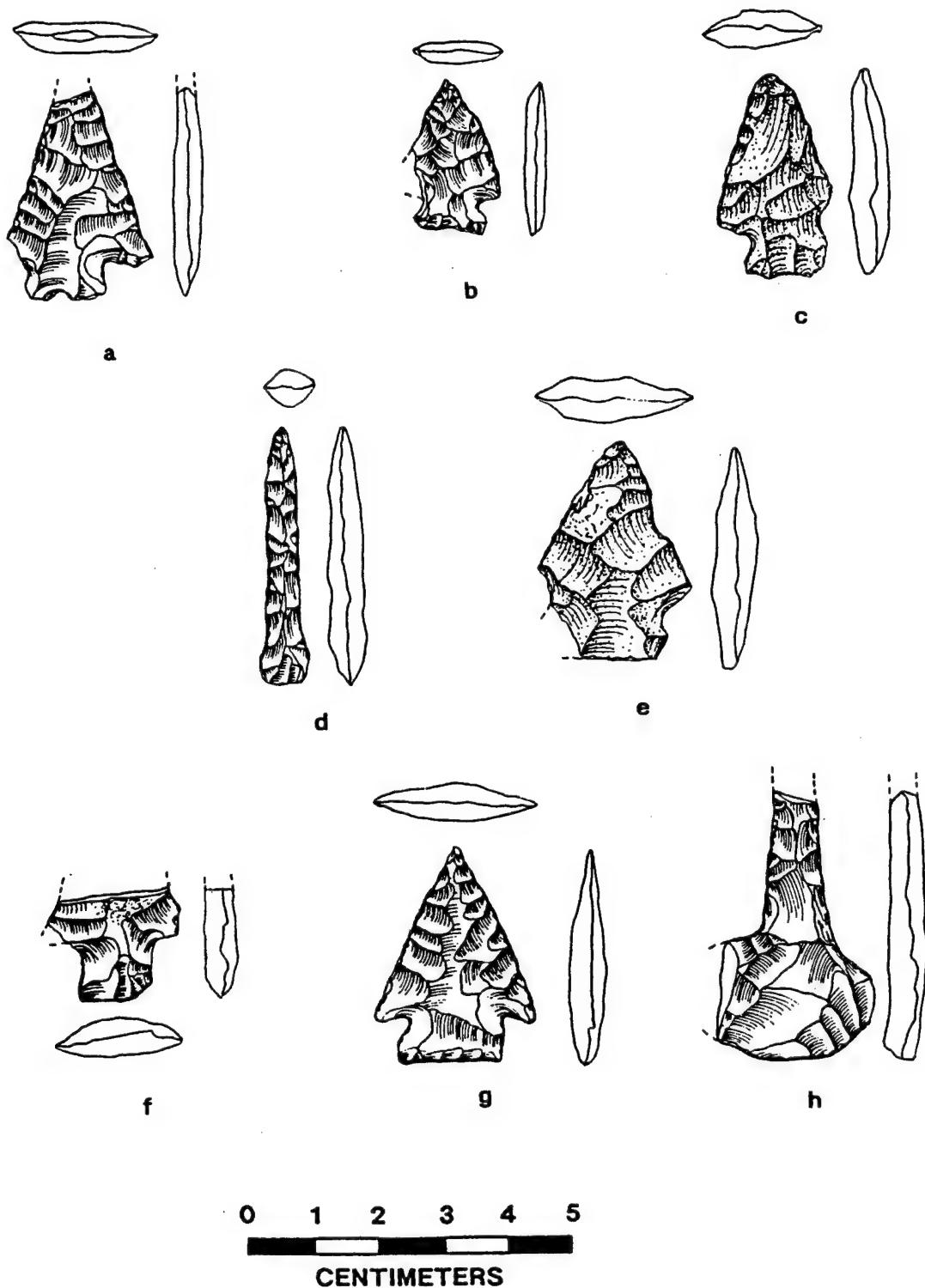


Figure II.3 Flaked-lithic artifacts. a (5EP2726.1a), b (5FN180.68a), c (5FN1547.1a), d (5PE326.134c), e (5PE338.38b), f (5PE363.7a), g (5PE366.2a), h (5PE366.2c).

Chronology

Morphological characteristics of this projectile point suggests that it dates to the Archaic period, but finer chronological differentiation is not possible at this time from the sample at Fort Carson.

5FN180

Specimen: 5FN180.68a (Figure II.3b)

This projectile point is nearly complete, missing part of a shoulder. This projectile point may have been weakly barbed. It is plano-convex in cross-section with convex blade edges and a sharp tip. It has an expanding stem, concave base, and tangs that are leveled. It is manufactured from a dark-brown dendritic chert.

Comparisons:

Morphologically similar projectile points from FCMR include the following: Type II-B Specimen I (Alexander et al. 1982:Figure 4.2) which is dated to the Late Prehistoric period (A.D. 1000-A.D. 1500); and Type 8 Specimen A, which Zier et al. (1996:Figure 6) tentatively date to the Middle Ceramic period (A.D. 900/1000-A.D. 1500). There is also a similarity to Avonlea projectile points as described by Perino (1968:Plate 3).

Projectile Points Previously Collected

Six Type IV points were recovered during the original inventory (Alexander et al. 1982:Table 4.1). All are dated by Alexander et al. (1982:96) to the Plains Woodland period (A.D. 1-A.D. 1000).

Chronology

In addition to projectile points, ceramic and groundstone pieces were recovered and documented by Alexander et al. (1982:78). The aforementioned artifact assemblage suggests that a reasonable temporal affiliation for the site is Early to Middle Ceramic period.

5FN1547 (IF)

Specimen: 5FN1547.1a (Figure II.3c)

This projectile point, manufactured from a bright orthoquartzite Ahler (1997), is medium-sized with a slightly expanding stem. The projectile point is missing the very tip of the blade element and a portion of a margin that includes one shoulder. It is thick with one surface that was not thinned. The tip is inferred to have been dull with convex blade edges that are unserrated. The point is plano-convex in cross-section. The shoulder and tangs are rounded and abrupt. The base is slightly concave.

Comparisons:

Specimens from Category P20 from Lintz and Anderson (1989:Figure 4.19) best resemble this projectile point. Projectile points included within this category are dated from

500 B.C.-A.D. 1. Type 5 Specimen D (Jepson et al. 1992:Figure 10) is similar and dates from 1000 B.C.-A.D. 1200. In addition, Type 6 Specimen I (Zier et al. 1996:Figure 5), which is dated to the Late Archaic period, and MM18 and MM19, which are associated with the Apex Complex (Irwin-Williams and Irwin 1966:Figure 25), are morphologically similar.

Chronology

Based on point morphology, this specimen may date from the Late Archaic through the Early Ceramic periods. It is an isolated find with no associated diagnostic artifacts; therefore, temporal interpretations should be evaluated within this context.

5PE326

Specimen: 5PE326.134b

This broken biface is manufactured from maroon chert. Because of its size, it may have been intended as a hafted knife but was perhaps broken during manufacture. A possible beginning notch is present.

Specimen: 5PE326.134c (Figure II.3d)

This complete drill is manufactured from a light-yellow chert that is translucent along the margins. It is unclear whether this drill was hafted. The long, thin drill tapers at the distal end. The base has been thinned perpendicularly to the blade flaking.

Projectile Points Previously Collected

Previous collections from this site include Class I, II, IV, and VI projectile points (Alexander et al. 1982:Table 4.1) which these authors assign to the broad temporal span from the Middle Archaic to Late Prehistoric periods. The presence of cord-marked ceramics and groundstone metates and manos suggest that the site may be associated with an even larger time span from the Early Archaic to the Plains Woodland periods (Alexander et al. 1982:82). The only diagnostic artifacts collected during the 1997 revisit were two cord-marked ceramics.

5PE338

Specimen: 5PE338.38a

This small incomplete flaked-lithic tool may represent the base of a biface that has been reworked into a small perforator. The raw material is a waxy chert with a pinkish hue (thermal alteration).

Specimen: 5PE338.38b (Figure II.3e)

This preform is crudely manufactured from a dull-gray orthoquartzite. It appears to have been broken prior to having been finished. The specimen exhibits an expanding stem, although one basal margin including the notch is missing. The extant notch is shallow with

an abrupt sloping shoulder. Tang morphology is indeterminate. The base is straight and unground; the blade element shows straight edges that are unserrated and a dull tip.

Projectile Points Previously Collected

Previous collections from the site include one Class II projectile point (Alexander et al. 1982:Table 4.1), ceramics, and groundstone. These authors assign a temporal span from the Plains Woodland (A.D. 1-A.D. 1000) to the Late Prehistoric periods (A.D. 1000-A.D. 1700) to this site.

5PE363

Specimen: 5PE363.7a (Figure II.3f)

This specimen is a broken projectile point manufactured from material similar to Alibates Chert; however, unlike Alibates Chert, this specimen does not fluoresce. The stem is slightly expanded. The blade element is fractured horizontally across the width. The shoulders are abrupt, and it is plano-convex in cross-section. The base exhibits rounded tangs, and a convex base that is unground. A large step-fractured flake scar terminates at the top of the hafting element.

Comparisons:

This medium-sized projectile point probably is dated to the Archaic period. The base morphology, however, suggests a possible Early Ceramic period affiliation (Van Ness et al. 1990:Figure 28). This inference is based on Early Ceramic points recovered from the Recon John Shelter (Zier 1989). The point is morphologically similar to Type VIII-A, an unclassified category that resembles Archaic period technology (Alexander et al. 1982:109-110, Figure 4.3). Projectile points in Category P29 (Lintz and Anderson 1989:Figure 4.24) closely resemble the hafting characteristics of the 1997 specimen, and which they date from 3000 B.C.-1000 B.C.

Chronology

A highly tentative date of Late Archaic to Early Ceramic periods is proposed for 5PE363. No groundstone or ceramics have been observed at the site.

5PE366

Specimen: 5PE366.2a (Figure II.3g)

This complete projectile point is medium-sized with an expanding stem and well-patterned flaking. The raw material is a coarse, white chert with pinkish-red inclusions. Heat treatment is inferred from the pinkish hue. The blade element is triangular with straight blade margins and a very sharp tip. The point is bi-convex in cross-section. The shoulders are slightly barbed and rounded with slightly expanding stem margins. The straight base has tangs that are rounded and abrupt.

Comparisons:

There is no readily discernible comparison to projectile point types in the Lintz and Anderson (1989) typology although Category P21 specimens (1000 B.C.-A.D. 500/1000), P22 specimens (1500 B.C.-A.D. 500), and P26 specimens (1000 B.C.-A.D. 500) all resemble this one (Lintz and Anderson 1989:Figures 4.20; 4.22). A similar point was collected in 1996 (Charles et. al. 1997b:Figure 6.12) in the area of Little Fountain Creek.

Specimen 5PE366.2b

This biface fragment exhibits hinge and snap breaks at both the distal and proximal ends. It exhibits well-patterned, parallel-oblique flaking. Raw material is a maroon chert with black (speck) inclusions. Pitting, which is evident on both surfaces may indicate heat treatment. The margins display evidence of use wear. This biface may have been intentionally retouched and perhaps curated. The flaking pattern may indicate an earlier flaking technology.

Specimen: 5PE366.2c (Figure II.3h)

This specimen is similar to the Type 1 flared-stemmed drill in Alexander et al. (1982:Figure 4.4). Similar drills have been collected from 5PE859 (Van Ness et al. 1990:Figure 24) and 5PE461 (Hartley et al. 1983:Figure 3.58). The proximal end is bulbous, there is a snap break along one of the vertical margins of the bulb, and the tip of the drill is missing. The waxy feel of the chert and the light pinkish hue suggest the drill was thermally altered.

Specimen: 5PE366.3a

One siltstone core/hammerstone was recovered from a shovel test excavated at the site. This tool is manufactured from a broken water-worn cobble. The tool exhibits weathering where it is broken, and the weathering appears to have occurred before it was culturally modified; flake scars on this side of the cobble removed portions of the weathered surface. At least four flakes have been removed from different direction. Battering is apparent along one of the pointed ends of the cobble.

Chronology

Based on the point morphology of Specimen 5PE366.2a, this shallow rock shelter may date from the Middle to Late Archaic periods. Ceramics and groundstone are conspicuously absent, and other diagnostic artifacts were not observed during the previous site recording (Alexander et al. 1982).

5PE649 (Mary's Fort)

Specimen: 5PE649.13b (Figure II.4a)

This complete snub-nosed end scraper is manufactured from a yellow chert. Use wear is visible along one edge.

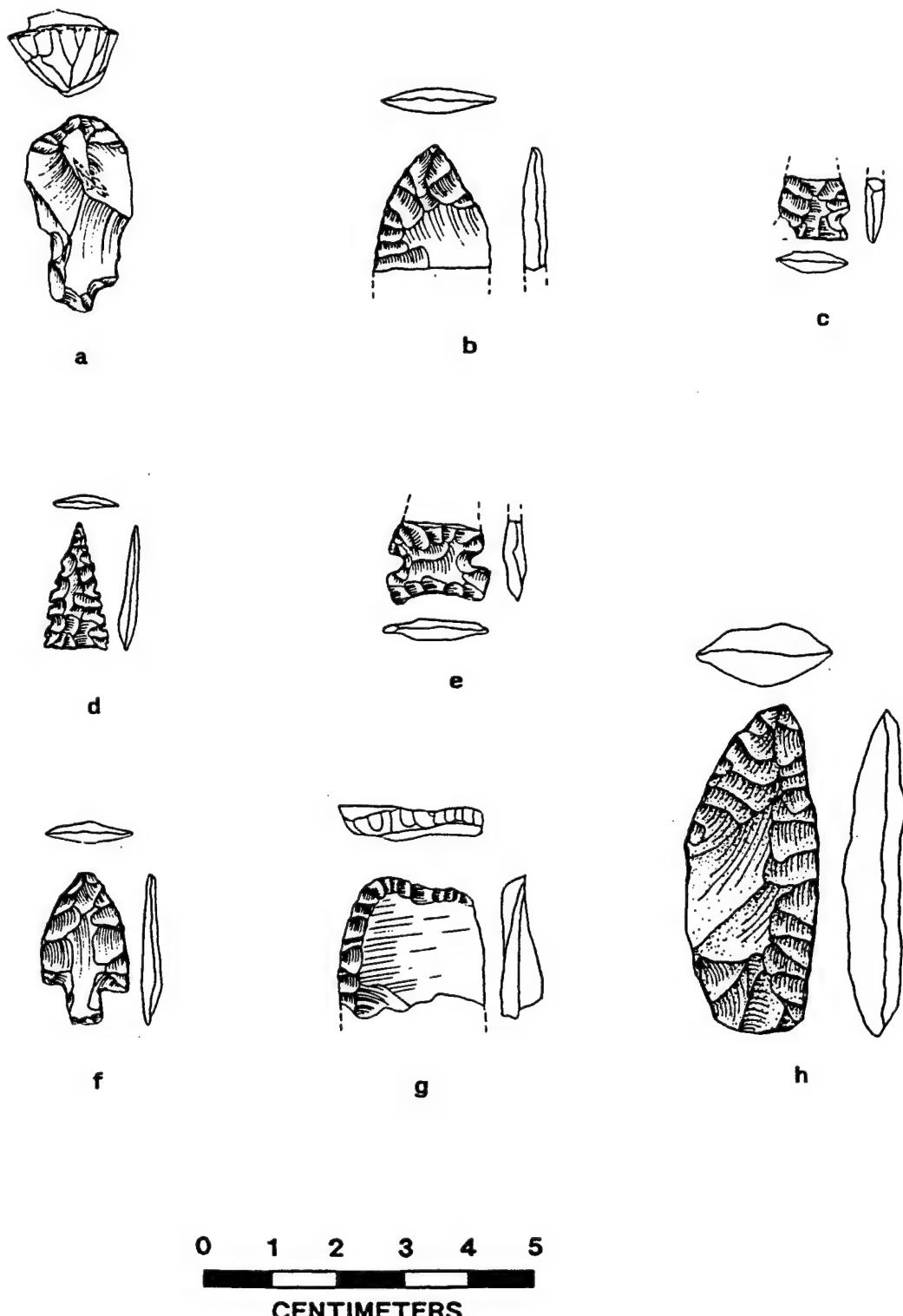


Figure II.4 Flaked-lithic artifacts. a (5PE649.13b), b (5PE649.13c), c (5PE738.2a), d (5PE738.2b), e (5PE745.2a), f (5PE745.2b), g (5PE868.318c), h (5PE868.318d).

Specimen: 5PE649.13c (Figure II.4b)

This biface may represent the tip of a projectile point which snapped across the blade element. The raw material is an orthoquartzite.

Projectile Points Previously Collected

Previous investigations suggest a strong Middle Ceramic period component based on numerous side-notched projectile points. Both cord-marked and plain ware ceramics were recovered. A charcoal sample was acquired during testing, at it produced an uncalibrated radiocarbon date of 560 ± 70 B.P. (Beta 11899 [Zier et al. 1997:Table 1]). The radiocarbon date, along with diagnostic artifacts, supports a Middle Ceramic period occupation for the site. Zier and Kalasz (1985:55) identify this site as perhaps the best intact Middle Ceramic period site with architectural remains in FCMR.

SPE738**Specimen: 5PE738.2a (Figure II.4c)**

This projectile point is broken horizontally across the blade element near the tip. One tang is completely missing. The blade edges are convex and unserrated, and the point is bi-convex in cross-section. The remaining hafting attributes include a rounded shoulder and tang, straight flange margin, and a straight base. The raw material is a pinkish red chert that is possibly thermally altered.

Comparisons:

This specimen best resembles those of Category P81 from the PCMS, which are dated between 100 B.C.-A.D. 900 (Lintz and Anderson 1989:Figure 4.35). Additionally, similar types include the following: Type 4 points from 5PE868 (Kalasz et al. 1993:Figure 9), which are dated to the Early Ceramic period; and Type 6 from Van Ness et al. (1990:Figure 24), which is dated between 100 B.C.-A.D. 900.

Specimen: 5PE738.2b (Figure II.4d)

This broken projectile point appears to have been broken neatly near the hafting element. The remaining projectile point tip is very sharp. The blade edges are straight, deeply serrated, and the projectile point is bi-convex in cross-section. The base has been reworked. The raw material is a pinkish-white chert.

Comparisons:

There are no morphological comparisons available in the FCMR literature or the PCMS typology.

Chronology

The projectile point assemblage from 5PE738 places site occupation from the Early Ceramic through the Late Prehistoric periods. Attributes such as its small size and the presence of serration is consistent with the Middle Ceramic to Late Prehistoric periods.

5PE745

Specimen: 5PE745.2a (Figure II.4e)

Although this specimen is broken, the haft element is complete. This contracting, flange-stemmed projectile point is manufactured from white chert. The two shoulders are rounded to slightly sloping and are asymmetrical. The point is bi-convex in cross-section. The base is convex.

Comparisons:

Regionally, this point resembles the Washita (Bell 1958:Plate 49) and Reed (Bell 1958:Plate 38) types. However, in contrast, this point has a sharply contracting flange, whereas the two previously mentioned types have straight to expanding flange stems. Lintz and Anderson (1989) PCMS projectile point typology shows two similar types: Category P79 (1989:Figure 4.43), expanding flange with a concave base; and Category P83 (1989:Figures 4.44 and 4.45), straight flange with a concave base. Category P79 projectile points are dated from A.D. 1000-A.D. 1750 and Category P83 projectile points are dated from A.D. 750-A.D. 1650. From the FCMR, similar projectile point type include the following: Type 7 (Van Ness et al. 1990:Figure 25); Type 11 (Zier et al. 1996:Figure 6); Type II-B (Alexander et al. 1982:Figure 4.2); Type II-C Specimen 5 (Hartley et al. 1983:Figure 3.55); Type 15 (Jepson et al. 1992:Figure 12); Type 5 (Kalasz et al. 1993:Figure 9); and Type I from The Avery Ranch site (Zier et al. 1988:Figure 44). These categories are dated from the Middle Ceramic to the Late Prehistoric periods (750 A.D.-1650 A.D.).

Specimen: 5PE745.2b (Figure II.4f)

This complete projectile point is straight-stemmed and manufactured from translucent silicified wood. The tip has been reworked and is dull, the blade edges are convex, and the point is bi-convex in cross-section. The shoulders are rounded to abrupt. The stem and base are straight. Both the ventral and dorsal surfaces exhibit limited thinning. A small, vertical snap along one hafting margin may result from impact fracturing.

Comparisons:

There are no reasonable comparisons available from the literature of Fort Carson or the surrounding region.

Previous Projectile Point Collection

A corner-notched projectile point was collected by CA in 1985, but it was not described in the available literature.

Chronology

Based on the previous recording of 5PE745 in which a firm Middle Ceramic period occupation was identified, and the collection of two projectile points in 1997 that substantiates the earlier findings, the site is associated with the Middle Ceramic to Late Prehistoric periods (A.D. 900-A.D. 1650).

5PE868 (Ocean Vista)

Specimen: 5PE868.318b

This retouched flake retains flake characteristics such as the platform and bulb of percussion. Use wear and retouch occurs unimarginally along two edges. The raw material is yellow silicified wood. The tool is complete.

Specimen: 5PE868.318c (Figure II.4g)

This beveled end scraper is manufactured from a light brown chalcedony. Use wear is bimarginal and retouching is unimarginal. The flaking is well-patterned.

Specimen: 5PE868.318d (Figure II.4h)

This biface is twice as long as it is wide and exhibiting well-patterned flaking. The raw material is banded orthoquartzite or bright quartzite Ahler (1997). There is a pronounced midline and a thinned proximal end. The base is convex. Use wear occurs bimarginally. A similar biface, Specimen J (Kalasz et al. 1993:Figure 8), was collected from the site during previous investigations.

Chronology

The site has produced significant archeological resources including open architecture, ceramics, projectile points, faunal remains, and radiocarbon dates that place the site within the Early or Middle Ceramic periods.

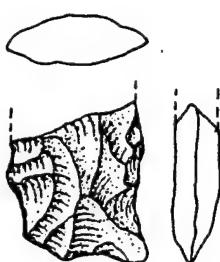
5PE889 (Sullivan Butte)

Specimen: 5PE889.27a (Figure II.5a)

This projectile point is manufactured from a dull quartzite or orthoquartzite (Ahler 1997). One tang exhibits a hinge fracture, and the blade element possesses a horizontal snap fracture. The specimen is thick and may not have been completed or sufficiently thinned before breaking. The point exhibits a sloping, shallow haft. The tang is distended and well rounded. The base is concave and lightly ground.

Comparisons:

Because the specimen exhibits distinct attributes, some reasonable similarities exist in the literature. The projectile point resembles those of Category P18 from Lintz and Anderson (1989:Figure 4.18), which date from 3000 B.C.-500 B.C. Fort Carson similarities include Type VI-B Specimen H (Alexander et al. 1982:Figure 4.3), which is dated to the McKean Complex (3000 B.C.-1000 B.C.), and Type 1 Specimen A (Kalasz et al. 1993:Figure 9) which is dated from the Early to Middle Archaic periods. Additionally, MM17 specimens from the Magic Mountain Site (Irwin-Williams and Irwin 1966:Figure 24) are similar. These projectile points are associated with the Apex Complex previously identified at the Magic Mountain Site. More precisely, the specimen resembles Duncan



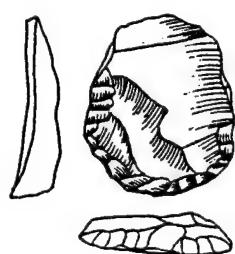
a



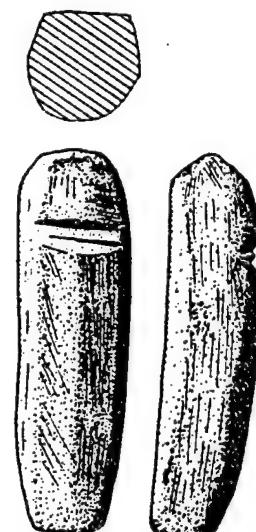
b



c



d



e



Figure II.5 Flaked-lithic and groundstone artifacts. a (5PE889.27a), b (5PE921.12a), c (5PE2211.1a), d (5PE2211.1b), e (5PE2211.1c).

projectile points (Gunnerson 1987:Appendix 1, Plate 13; Perino 1971:Plate 13) which date from 2500 B.C.-850 B.C.

Chronology

The stacked-stone structures and groundstone at this site argue for a Middle Ceramic period occupation (Van Ness 1990). However, no previous projectile points have been recovered. The probable Duncan projectile point collected in 1997 may suggest multiple occupation of the site during the Middle Archaic (3000 B.C.-1000 B.C.) and the Middle Ceramic (A.D. 1000-A.D. 1400) periods. The site's precipitance (defensible?) location affords excellent views in all directions and this location may have been a preferred one during temporally distinct occupations. It is entirely plausible that the artifact may have been curated as well.

5PE921

Specimen: 5PE921.12a (Figure II.5b)

This nearly complete, straight-flanged projectile point is manufactured from chalcedony. It is missing a small portion of one basal margin. The side-notches are situated near the middle of the overall length. The tip is sharp with slightly convex blade edges and is bi-convex in cross-section. It has sloping shoulders, abrupt tangs, and a very slightly concave base that is unground. One blade edge has been reworked.

Comparisons:

Regionally, this point resembles a Reed type (Bell 1958:Plate 38) and less so a Washita type (Bell 1958:Plate 49). The well-represented Category P83 specimens from Lintz and Anderson (1989:Figure 4.44 and 4.45) closely resemble this projectile point. Additionally, Type 7 (Van Ness et al. 1990:Figure 25), Type 11 (Zier et al. 1996:Figure 6), Type 1 from The Avery Ranch site (Zier et al. 1988:Figure 44), Type II-B (Alexander et al. 1982:Figure 4.2), Type II-C Specimen M (Hartley et al. 1983:Figure 3.55), Type 15 (Jepson et al. 1992:Figure 12), and Type 5 (Kalasz et al. 1993:Figure 9), are all associated with the Late Early Ceramic to Late Prehistoric periods (750 A.D.-A.D. 1650) and all are similar to this specimen.

Chronology

Inferences on the date of 5PE921 rest solely on a single projectile point collected from the site. No groundstone or ceramics have been observed. Based on the single projectile point, the site is tentatively associated with the Middle Ceramic period. This association is strengthened by its proximity to Middle Ceramic period sites in the Turkey Creek drainage.

5PE2211

Specimen: 5PE2211.1a (Figure II.5c)

This complete projectile point is manufactured from white chert. The blade edges are serrated, it has a very sharp tip and convex blade edges. The point is diamond-shaped in cross-section. The shoulders are abrupt with an expanding stem. The tangs are pointed, and the base is straight, but not perpendicular with the blade element.

Comparisons:

There is a close similarity to projectile points from Category P58 from the PCMS point typology (Lintz and Anderson 1989:Figure 4.36). These projectile points are dated from A.D. 400-A.D. 1400. Examples from Fort Carson that resemble this specimen include Type 5 (Van Ness et al. 1990:Figure 25), which is dated between A.D. 270-A.D. 1400, and Type IV-E (Alexander et al. 1982:Figure 4.2) The latter is dated by Alexander et al. (1982:99-100) to the Plains Woodland period (A.D. 1-A.D. 1000).

Specimen: 5PE2211.1b (Figure II.5d)

This complete beveled end scraper is manufactured from a reddish-brown chert. Both use wear and retouch are present on this uniface. The scraper is manufactured from a flake which retains the eraillure scar, the crushed platform, and the bulb of percussion. Several large flake scars are evident on the dorsal surface.

Specimen: 5PE2211.1c (Figure II.5e)

This oblong, polished groundstone tool resembles an atlatl weight, but the function is not conclusive. The raw material is a light gray talc/schist or talc. Battering and "pocking" are evident on both blunted ends and to lesser extents along the lateral margins. The tool is five-sided, having distinct ridges, but is smoothed and polished over the extent of the artifact with many visible striations. Two deeply incised parallel grooves encircle one end of the tool. These may have served as possible hafting elements.

Chronology

When compared with similar points from dated contexts, the projectile point recovered from this site confidently dates from the Early to Middle Ceramic periods. The end scraper morphologically fits a general category identified by Gunnerson (1987:41) as belonging to the Plains Woodland Complex, but which is not considered temporally diagnostic. The enigmatic groundstone tool is a possible atlatl weight which may have been curated for another function or collected as a curio.

Conclusions

Overviews of the literature from Fort Carson, Piñon Canyon, and the surrounding region, enable us to place the projectile points from sites within Fort Carson into a regional context. Extensive excavations of well-stratified sites within the FCMR are rare; therefore, the information from subsurface excavations is limited to excavations at Recon John Shelter (5PE648) and the The Avery Ranch site (5PE56), and testing from Gooseberry Shelter (5PE910), Ocean Vista (5PE868), and Windy Ridge(5EP1192). Limited test excavations of significant sites have not revealed a continuous projectile point typology sufficient for

understanding the long-term typologies of the area. Therefore, it has been necessary to compare projectile point specimens, according to morphological attributes defined by Dean (1992), with the surrounding region such as the PCMS (Lintz and Anderson 1989), Central High Plains (Gunnerson 1987), and the Mountain-Plains Transition (Irwin-Williams and Irwin 1966).

It is generally accepted that projectile point typologies for the FCMR are comparable with those of the more extensive projectile point categories defined for the PCMS. There has not, however, been clear cultural association established between the two areas; in fact, the two occupy rather distinct environmental zones. The FCMR occupies a transitional zone between the Plains and the Mountain/Foothills, whereas the PCMS is located within a variegated zone of canyons and low hills. These zones have an important bearing on site section, subsistence strategies utilized, and surrounding regions which contribute trade items and the diffusion of ideas.

One outcome of the current projectile point comparison is to investigation the temporal assessment of the FCMR. Additionally, the tabulation of collected projectile points by sites will eliminate hypotheses based solely on archeologists' constructed point morphology and better address the temporal framework of the area. Point typologies according to site may also indicate individual cultural units discernible by anomalies in point traits. This may seem contradictory at first, but to address point typologies simply on morphological traits alone belies the importance of assessing point collections by site. It is worth noting that the database is only just now reaching the extent to where there are sufficient number of projectile points over a large enough sample to make inferences. Comparisons by site are noticeably absent in the literature which makes chronological and settlement distribution assessments difficult for this area. Sound regional comparisons cannot be established without creating temporal markers for the project area. This historical-relativist view underscores the importance of regional morphological comparisons, but amplifies the jurisdiction of points relative to Mountain-Plains transition areas. This area of relatively sparse research demands locale-specific assessments before extensive regional comparisons. Simply stated, there has not been a sufficient amount of data recovered to accurately determine the regional association between FCMR material.

Temporal Assessment for the Fort Carson Military Reservation

Paleo Indian period (12,000-7000 B.P.):

Projectile points associated with big game hunting are present within the project area, but at the moment are rare. Paleo Indian points are confined to the Plano or Late Paleo Indian period (10,200 B.P.-7500 B.P.). One complete projectile point and two base fragments were recovered in 1982 (Alexander et al. 1982:103). The complete specimen is untyped, but bears resemblance to the Alberta and Eden projectile point styles. The two base fragments are possible Eden and Plainview points. In 1995, FLC recovered the base of a Plainview, Jimmy Allen, or Frederick projectile point from a site on Booth Mountain

(Charles et. al:1997a:6.28). Additionally, a possible Eden, Hell Gap, or Scottsbluff point base was collected as an isolated find from this same inventory. The base of an Eden point was recovered from a shovel test at 5EP1345 during the 1997 reevaluation project. These six points comprise the known Paleo Indian projectile point assemblage at Fort Carson. Investigations over the last two field season have doubled the Paleo Indian projectile point assemblage. Archeological sites associated with the Paleo Indian period, however, have not been identified, and it is possible these points represent curated artifacts.

Archaic period (5500 B.C.-A.D. 200)

Early Archaic (5500 B.C.-3000 B.C.):

There is a noticeable absence of Early Archaic projectile points from Fort Carson, unless the Paleo Indian projectile points represent a transitional Early Archaic occupation. In fact, Van Ness et al. (1990) was unable to develop a discriminate variable outline for Early to Middle Archaic points based on previously collected specimens. The Early Archaic period corresponds to the proposed Altithermal. However, this does not explain the paucity of Early Archaic components since the foothills are considered to have been a refugium. A recently dated Early Archaic component at Gooseberry Shelter (5PE910) is radiocarbon dated to 4930 ± 210 B.P. ([Beta 40888] Zier et al. 1997:Table 1).

Middle Archaic (3000 B.C.-1500 B.C.):

Middle Archaic projectile points from Fort Carson are generally represented by the McKean Complex, of which the McKean, Duncan, Hanna, Mallory, and Scoggins subtypes are included (Zier et al. 1996:32). Points from this Complex were collected from 5PE1791 (Charles et al. 1997a:Figure 6.9), 5EP160, 5PE889, 5EP2726 (this report), 5EP1674 (Zier et al. 1995:Figure 5), 5EP1697 (Zier et al. 1996:Figure 5), possibly 5EP1068 (Jepson et al. 1992:Figure 9), 5EP1345 (Jepson et al. 1992:Figure 9), and 5PE910 (Kalasz et al. 1993:Figure 9). Other possible Middle Archaic component sites include one from Alexander et al. (1982), the specific site is unknown, and several sites discussed in Jepson et al. (1992:Figures 9 and 10). Those sites include 5PE1039, 5PE1049, 5EP1064, 5PE1067, 5EP1068, 5EP1340, and possibly a diminutive Duncan point from 5PE1056.

There are two firmly dated buried Middle Archaic components from Fort Carson: the Recon John Shelter (5PE648) and Gooseberry Shelter (5PE910). Draper Cave southwest of Fort Carson, contains the southernmost extent of McKean type projectile points (Zier et al. 1996 citing Hagar [1976]). However, McKean cultural components have not yet been located within the reservation. Four McKean Complex-type points were collected from the 1995-1997 field seasons, almost doubling the previous quantity.

Late Archaic:(1500 B.C.-A.D. 200):

There is a marked increase in the number of Late Archaic and transitional Early Ceramic period projectile points from Fort Carson. Generally, the points exhibit an expanding flange (corner-notch) hafting morphology and an overall size characteristic of atlatl darts and spear points. Observations on projectile points from the FCMR suggest less

of a clear transition between the Late Archaic and the Early Ceramic periods than in other areas. Comparisons on a regional scale between dated assemblages are difficult, and probably reflect a trend towards regionalism as postulated by Zier et al. (1996). As noted by Zier et al. (1997a), over thirty Late Archaic components are suggested by the projectile point assemblages at sites in Fort Carson, a sharp increase from previous periods. There are too many sites with probable Late Archaic components to be listed here. Moreover, the certainty of labeling a point Late Archaic as opposed to Early Ceramic, based simply on morphology is tenuous at best. There seems to be less of a transition between Late Archaic and the Early Ceramic period projectile points. With the onset of increased horticulture and sedentism during the early Middle Ceramic period one sees a clear adaptation to bow-and-arrow technology, and a clear difference in point styles.

Van Ness et al. (1990:Figure 38) suggest size differences between Late Archaic and Early Ceramic projectile points. Late Archaic projectile points are characterized by more elongated blade elements and larger overall size. Early Ceramic period projectile points seem to reflect the slow transition to new technology by simply decreasing in size, but maintaining the general morphological traits (corner-notched with expanding stems). Additionally, craftsmanship appears to diminish between Middle Archaic and Middle Ceramic periods. It is unclear whether this reflects a change in technology or a decrease in time investiture.

Four sites from the FCMR have firmly dated Late Archaic components from buried contexts, including Recon John Shelter (5PE648), Gooseberry Shelter (5PE910), Two Deer Shelter (5PE8), and 5EP45. Three of the four sites are situated in rock shelters adjacent to Turkey Creek. Few sites from the 1997 point assemblage could be reasonably attributed to the Late Archaic period.

Early Ceramic/ Plains Woodland (A.D. 200-900/1000):

As stated above, a clear distinction between Late Archaic and Early Ceramic period projectile points is presently difficult. Surface collections, which constitute the majority of the database, do not lend support towards differentiating between these two periods. Diagnostic characteristics of Early Ceramic period projectile points include convex blade edges, corner-notches, and expanded stems. Few specimens collected from 1997 could be conclusively placed in an Early Ceramic period.

Middle Ceramic period (A.D. 900 - 1450/1500):

There is no question that the FCMR has a strong Middle Ceramic period occupation represented within its borders. A majority (58%) of projectile points collected during the 1997 reevaluation project are affiliated with this period. Projectile points from this period generally include side-notched and unnotched types. Additionally, 34 sites listed in the MPD (Zier et al. 1997a), belong within this semi-sedentary period. Nearly 90 sites were listed by

Zier et al (1997a) as having definite or probable affiliation with the Middle Ceramic period, and twelve radiocarbon dates fall within this period (Zier et al. 1997a:37).

During analysis of the projectile points recovered in 1997, projectile points typed as dating to the Middle Ceramic period were determined to be morphologically similar to the well-defined typologies of neighboring regions. These general regional types include the Reed and Washita types from the extreme Southern Plains, and the Desert Side-Notched from the Great Basin. It should be noted that triangular side-notched points are ubiquitous on the Plains, Great Basin, and ancestral Puebloan areas during this period. In every instance, however, similar points from the FCMR exhibited diagnostic attributes that did not correspond conclusively to the regional types mentioned above. They did, however, match the PCMS typology generated by Lintz and Anderson (1989), the closest regional typology available. Category P83 (1989:218), whose defining diagnostic attributes include straight-flanged stems and concave bases on triangular points corresponded directly with three points from the 1997 reevaluation. Several so-called "bird" points, named for their diminutive size, and unnotched points complete the Middle Ceramic period projectile point assemblage. These diagnostic attributes also pertain to Protohistoric types and these projectile points may date to this period; although, no Protohistoric (Late Ceramic) period sites have been conclusively identified within the FCMR.

Ceramic Analysis

To continue along the lines of consistency the following definitions for ceramic analysis and classification are those previously established for Fort Carson: (Jepson et al. 1992:199-200; Kalasz et al. 1993:91-93; Peebles 1985; Van Ness et al. 1990:258-259; Zier et al. 1988:163-165; Zier et al. 1996:135-136).

Ware

A broad group of ceramics sharing similar composition, firing method, and surface finish (see also Rice 1987:5, 287).

Category

A group of ceramics with similar surface treatment and color, texture, wall thickness, rim form, and to a lesser extent, temper size.

Hardness

Hardness determinations are based on Mohs' mineral scale and standard substitutions, where the fingernail is equivalent to gypsum (hardness of 2), an iron nail to calcite (3), glass to fluorite (4), and steel pen knife to apatite (5).

Vessel Form and Shape

Bowl:

A vessel having an interior open to view and an orifice diameter as great or greater than the maximum vessel body diameter.

Jar:

A vessel having a minimum rim or neck diameter more narrow than the maximum body diameter

Direct Rim:

A rim distinguishable from the neck and/or body of a vessel, extending to the lip without a break in contour (Shepard 1980:245).

Everted Rim:

A rim that curves outward.

Inverted Rim:

A rim that curves inward.

Lip:

The upper surface of the rim, located between the interior and exterior surfaces.

Color

Surface and paste color designations are derived from the Munsell Soil Color Charts (1975).

Particle Size

Particle size is based on the Wentworth scale, only a portion of which is appropriate for ceramic analysis (Shepard 1980:118). Grade limits are expressed in millimeters as follows: silt (0.0039-0.0625), very fine sand (0.0276-0.125), fine sand (0.125-0.25), medium sand (0.25-0.5), coarse sand (0.5-1), very coarse sand (1-2), granule gravel (2-4), and pebble (4-64).

Surface Texture

Fine:

A surface which appears smooth due to wiping a fine-grained paste with a yielding tool (Shepard 1980:121).

Grainy:

A surface with protruding medium and coarse temper particles resulting from either vessel shrinkage after drying or from the use of a yielding tool to finish the vessel while in a plastic state (Shepard 1980:121).

Tactilely Smooth:

The texture of a surface in which temper particles of any size have been leveled by rubbing the surface in a plastic or leather-hard state with a hard tool. No luster is present, and the surface feels smooth (Shepard 1980:121).

Surface Finishing Marks

Obliterated:

The partial destruction of a patterned surface by additional finishing such as wiping, scraping, pressing, polishing, brushing, paddling, etc.

Wiping Striations:

Fine-linear ridges with blunted crests and edges (Shepard 1980:190).

Paste Texture**Compact:**

Material which maintains form and integrity without crumbling when broken.

Dense:

Space between clay grains is not visible to the unaided eye.

Friable:

Material which crumbles when broken.

Results

A total of 25 ceramics were collected from the surface of 11 sites during the 1997 reevaluation. A sample of the ceramics collected during the reevaluation are presented in Figure II.6 and 11.7. These 11 sites include the following: 5EP56; 5EP143; 5EP1080; 5EP1192; 5EP1345; 5PE60; 5PE326; 5PE623; 5PE649; 5PE868; 5PE904; and 5PE1571. Ceramics had been previously documented at all but two of the eleven. The two sites from which ceramics were not previously documented are 5EP56 and 5EP1345. Two ceramics each from 5EP56 and 5PE1571 were refitted during analysis reducing the total ceramics analyzed to twenty-three, only one of which is a rim.

Ceramics are usually classified into wares and types. Centennial Archaeology, over the last ten years of work at Fort Carson, consistently defines a ware as a broad group of ceramics sharing similar visual characteristics of exterior surface treatment (Zier et al. 1996:135). Ware definitions defined initially by Zier et al. (1988) for the Avery Ranch site are used in this analysis. Type definitions have been avoided in the past due to small sample sizes, and they are not included in this report.

Previous ceramic studies beyond Fort Carson but within southeastern or eastern Colorado include the following: Campbell (1969), Eddy (1982), Hummer (1989), Ireland (1968), Peebles (1985), Sanders (1990), Wood (1971), and Wood and Bair (1980). Ceramic studies conducted at Fort Carson and which were utilized in this analysis include the following: Ireland (1968), Alexander et al. (1982), Hartley et al. (1983), Jepson et al. (1992), Kalasz et al. (1993), Van Ness et al. (1990), Watts (1971, 1975), Zier (1984, 1989), Zier and Kalasz (1985), and Zier et al. (1988, 1996).

The following ceramic classification is based primarily on the criteria first outlined in Zier et al. (1988) for the Avery Ranch site (5PE56). This sample represents one of the largest samples from a single site at the FCMR. General similarities between the Avery Ranch site and other sites with ceramics can be assumed partially because of their relative close proximity. Zier et al.'s (1988:163) classification originally defined six ceramic wares:

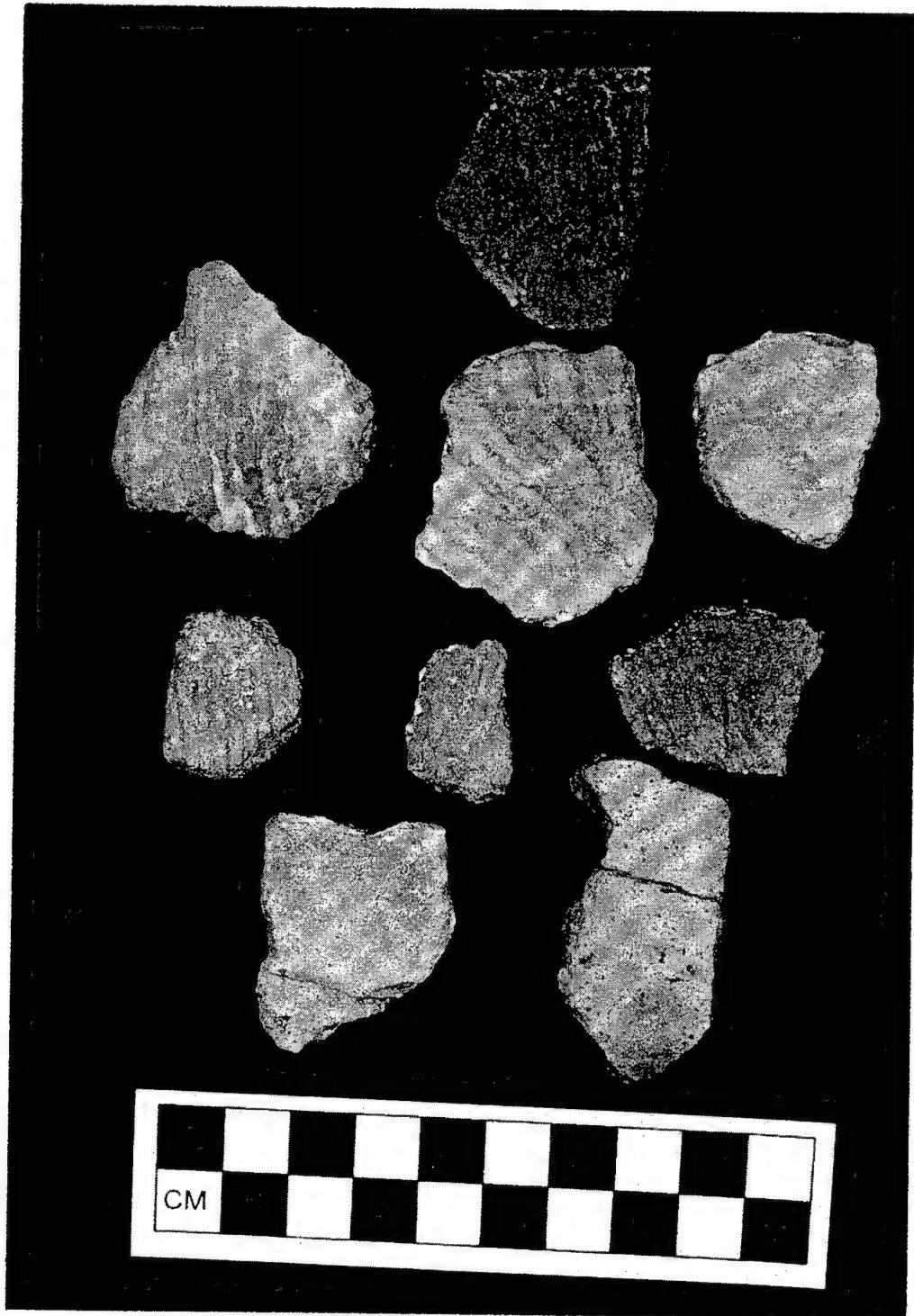


Figure II.6. Ceramic Artifacts. Top Row: 5PE868.318a, Cord-marked 1. 2nd Row: 5PE904.50a, Cord-marked 3; 5PE904.50a, Cord-marked 3; 5PE1080.84a, Cord Marked 1. 3rd Row: 5PE623.4a, Cord-marked 2; 5PE60.3a, Cord-marked 1; 5EP1192.89a, Cord-marked 1. Bottom Row: 5PE1571.6a, Cord-marked 2; 5EP56.19a, Plain Ware 3.

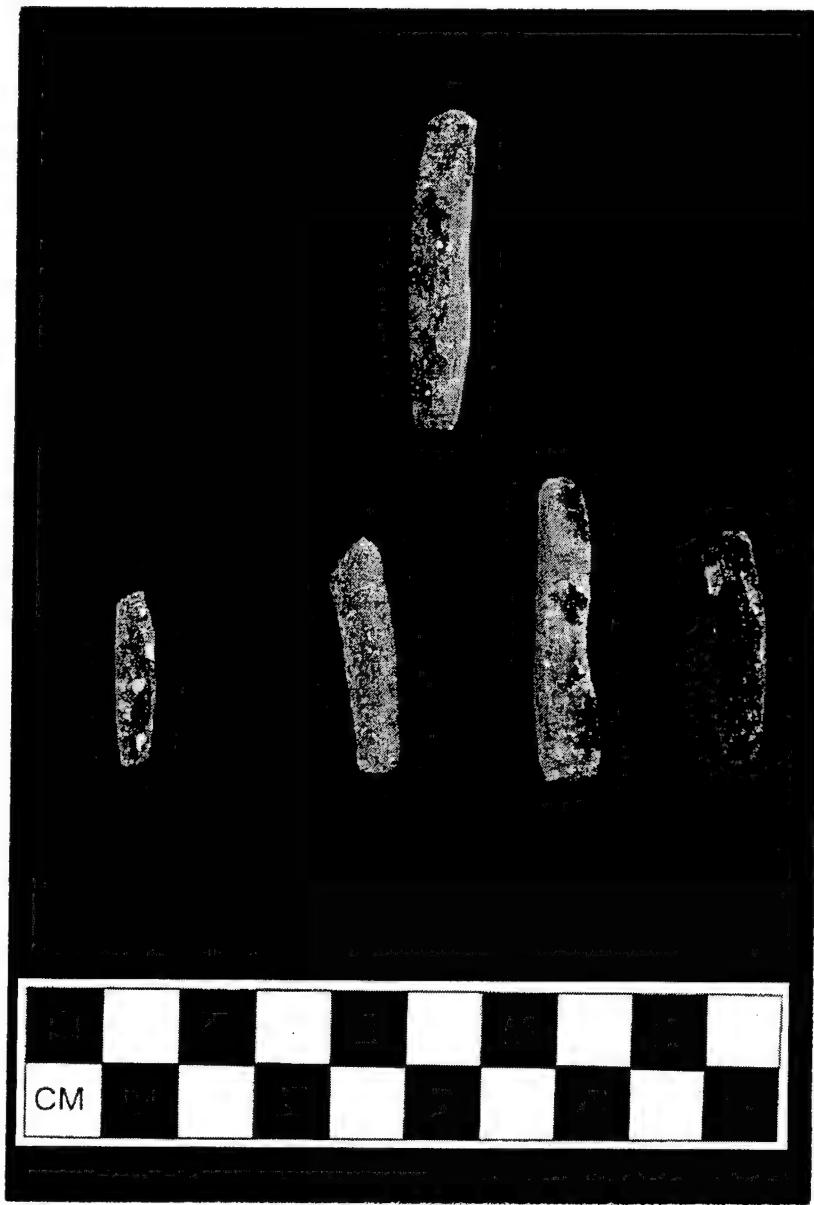


Figure II.7. Cross-section of Selected Ceramic Artifacts: Top Row: 5PE868.318, Cord-marked 1(Rim). Bottom Row: 5PE60.3a, Cord-marked 1, 5EP1080.84a, Cord-marked 1; 5PE904.50a, Cord-marked 3; 5EP1192.89a, Cord-marked 1.

cord-marked, plain, polished, incised, vertically indented, and wiped. An unidentified group was not designated as a ware. In the following years cord-marked, plain, and unidentified wares are easily the most recognized and prevalent wares. The number of wares may simply be the result of the sample size, however.

Categories within wares were defined on differences within a single ware depending on aggregate feature differences or similarities (Zier et al. 1996:135). Characteristics used to define ware categories include surface treatment, color, texture, wall thickness, and temper. Three categories of cord-marked ceramics (Cord-marked Categories 1, 2, and 3) and one category of plain ceramics (Plain ware Category 1) are present in the ceramic assemblage from the 1997 reevaluation project. These categories account for all but two of the 1997 ceramic assemblage. The two remaining ceramics are placed in an indeterminate category.

Cord-Marked Wares

Three categories of cord-marked wares were originally proposed (Zier et al. 1988) for ceramics found on the FCMR. Later researchers (Jepson et al. 1992; Kalasz et al. 1993; Van Ness et al. 1990; and Zier et al. 1996) noted the similarity of ceramics analyzed for those projects with the defined categories and utilized those categories for descriptive purposes. All of these analyses were conducted by Centennial Archaeology and indicate a continuity in the identification of categories within cord-marked wares. The following discussion for each ware category is the result of combining all the characteristics identified by researchers from Centennial Archaeology (Jepson et al. 1982; Kalasz et al. 1993; Zier et al. 1988, and Zier et al. 1996) into a single category description. The ceramic analysis from the Recon John shelter (Zier 1989) is intentionally excluded from this discussion because it does not follow the same descriptive categories. Each ware discussion is followed by a description of ceramics collected by Fort Lewis College during the 1997 field season and considered to belong within each category.

Cord-Marked Category 1:

These ceramics are slightly to almost completely obliterated cord-marked, light to dark colored ceramics with walls of thin to medium thickness, and medium to coarse temper. The degree of cord-mark obliteration varies from moderately cord-marked exteriors with slight smoothing to nearly completely obliterated (Zier et al. 1996:137). Rims are described as being direct to slightly everted and slightly inverted.

Number of Specimens:

292 body ceramics

11 rims

Total: 303

From sites: 5PE56, 5PE63, 5PE833, 5PE868, 5PE896, 5PE897, 5PE904, 5PE910, 5PE919, 5PE925, 5PE1047, 5PE1672, 5EP1080, 5EP1192, 5EP1208, 5EP1213, 5EP1216, 5EP1339, 5EP1347, 5EP1381

Construction: Undetermined. Either no laminations are visible or laminations are visible parallel to the surface on some individual ceramics. A few ceramics have laminations oriented obliquely to the surface which suggests coiling.

Thinning: Paddle and anvil or undetermined. Anvil impressions can occur on the interior and can be physically observed, particularly on larger specimens.

Firing Method: Variable, from completely smudged to incompletely oxidized.

Paste:

Color: Generally dark-colored paste. Noted colors include the following: black (N2/0, 10YR 2/1), gray (N3/0, 7.5YR 3/1), very dark gray (N4/0), dark gray (10YR 4/1), pinkish gray (7.5YR 6/2), dark grayish brown (7.5YR 5/2), and brown (10YR 3/2). Thin exterior rinds can range from black (N 2/0), dark gray (N 3/0, 5YR 3/1, and 10YR 3/1), brown (7.5YR 5/3, 7.5YR 5/4), reddish-brown (5YR 5/3), and yellowish-red (5YR 5/6). Paste near the interior can range from light red (2.5YR 6/6) to black (N2/0). Dark gray (N3/0) and black are more common colored interior pastes.

Temper: Temper particles vary from angular to rounded, but are usually subangular. quartz is the most prevalent temper. Feldspar, basalt, and sandstone are also noted. Residual mica occurs in many ceramics. The amount of temper varies between 10-65% with an average between 20-30%. Temper particles vary in size from very fine sand (0.0625 mm) to granule gravel (2-4 mm). A medium sand (0.25 mm) to coarse sand (1 mm) particle size is the average size.

Texture: Variable. Paste texture can be dense, compact, or friable.

Hardness: 2-3 based on Moh's mineral hardness scale.

Surface Finish/Decoration:

Exterior: Exterior surface colors vary from black (N2/0) to pinkish-white (7.5YR 8/2). Pale brown (10YR 6/3), light brown (7.5YR 4/2, 7.5YR 5/4, 7.5YR 6/4) and gray (10YR 5/1), pinkish-gray (7.5YR 6/2), light brownish gray (10YR 6/2) to very dark gray (N3/0) are considered the most common colors. Cord-marks occur on all exteriors and are slightly obliterated to nearly completely obliterated. Individual grooves are generally less than 2.5 mm apart but can vary from 0.2 mm to 3.4 mm apart. Groove depths can vary on a single vessel. Wiping striations are visible on some ceramics and can be at multiple angles to the cord-marking. Temper and mica are often visible on exterior surfaces.

Interior: Interior surface colors vary from black (N/20) to pinkish gray (7.5YR 7/2). Colors are generally light brownish-gray (2.5YR 5/1, 7.5YR 5/1, 2.5YR 6/2), gray (N4/0), dark grayish-brown (2.5YR 4/2), pale brown (10YR 7/3) or black (N2/0). The surface can be grainy to fine. Wiping striations are sometimes visible.

Form: Rims indicate both jars and bowls.

Rim: Rims are direct and are everted to inverted with generally squared lips; although, at least one rounded lip is included in this category. The everted rims can be slightly lipped on the interior and the rounded lip tapered to the exterior. Decorations below the lip are incised or impressed, and include diagonally incised parallel lines and punctates. The lips are undecorated.

Dimensions.

Wall Thickness: 3-9 mm, average 6-6.3 mm

Rim Thickness: 6-9.2 mm, average 8.3 mm

Lip Thickness: 2-9 mm, average 6.5 mm

Comments: Although the range of variation of attribute patterning is broad within this category, distinctive characteristics include thin to medium thick walls, irregularly distributed temper particles of quartz and feldspars, and a variety of cord-mark impressions and concomitant degree of exterior surface obliterations (Zier et al. 1996:140). This category has been tentatively dated to the Early to Middle Ceramic periods.

1997 Ceramic Analysis

Number of Specimens:

5PE60.3a	= 1
5PE326.134a	= 2 (same vessel)
5PE868.318a	= 1 (rim)
5EP143.74a	= 2 (same vessel)
5EP1080.84a,	= 3 (possibly three vessels)
5EP1192.89a	= 1
Total = 10	

Construction: Undetermined.

Thinning: Paddle and anvil (based on slight indentation on interior of larger ceramics).

Firing: Completely smudged to incompletely oxidized.

Paste:

Color: The colors are brown (10YR 5/3, 10YR 4/3), grayish-brown (10YR 5/2), dark gray (10YR 4/1) or black (2.5YR 2.5/0). Two of the ceramics from 5EP1080 had a light red oxidized rind (2.5YR 6/6) next to the exterior.

Temper: Subangular quartz particles are the dominant temper. Mica is present but to a lesser degree. The percentage of temper varies from 15-30%. Particle size varies from

medium sand (0.3 mm) to granule gravel (3.2 mm), but the average is less than 1.5 mm (coarse to very coarse sand).

Texture: Friable to compact.

Hardness: 2 to 3.

Surface Finish/Decoration:

Exterior: Exterior colors include brown (10R 5/3, 10YR 4/3) yellow-brown (10YR 5/4), grayish-brown (10YR 5/2), dark grayish-brown (10YR 4/2), dark gray (10YR 4/1), and black (2.5YR 3/0). Cord marks occur on all ceramics and are slightly obliterated to nearly completely obliterated. Nearly obliterated appears most common. Individual grooves average less than 2 mm apart and vary between 0-2.4 mm apart. Wiping striations are not apparent on any of the ceramics. Temper is generally visible on the exterior but does not protrude.

Interior: Interior surface colors includes shades of brown (10YR 4/3), gray-brown (10YR 5/2), dark gray (10YR 4/1) and very-dark gray (10YR 3/1). Surface is tactilely smooth to slight grainy. Temper is visible at the surface of some of the ceramics, but does not protrude. Wiping striations are lightly visible to absent. Slight anvil indentations are noted on some of the larger specimens.

Form: Undetermined.

Rim: One slightly inverted rim with a square lip was collected from 5PE868. Diagonal cord-marks decorated the rim. Kalasz et al. (1993) also collected an inverted rim from the same site (5PE868). Interior of this ceramic is exfoliating.

Wall Thickness: 3.1-7 mm, average 5.7 mm.

Rim Thickness: 7.3 mm.

Lip Thickness: 6.3 mm.

Comments: The two main criteria of Cord-marked Category 1 are thickness and surface treatment. Cord-marked Category 1 ceramics are generally thinner than other cord-marked categories; the surface treatment varies, but is generally obliterated to some degree.

Cord-Marked Category 2:

Ceramics in this category are brown to dark gray with regularly and evenly applied and obliterated cord-marks, coarse temper, very uneven interior surface, and medium to thick walls (Van Ness et al. 1990:265). Zier et al. (1988) note that the only known rim is slightly inverted.

Number of Specimens:

6 body ceramics

1 rim

Total = 7

From sites: 5PE56, 5PE868, 5EP1216

Construction: Undetermined. Paste is laminated parallel to the surface. One ceramic has oblique laminations suggesting possible coiled construction.

Thinning: Paddle and anvil (based on indentation on all interior surfaces).

Firing Method: Variable. Incompletely to fully oxidized, unoxidized, or smudged.

Paste:

Color: Black (N 2/0), very dark gray (N 3/0), brown (7.5YR 5/2) and light brownish-gray (10YR 6/2). There is no mention of exterior rinds.

Temper: Subangular to rounded quartz particles are dominant. Feldspar is also noted. Light to moderate amounts of residual mica are present in all ceramics. The amount of temper ranges between 20-40%. Temper particles vary from fine sand (0.125 mm) to very coarse sand (2 mm).

Texture: Dense to compact with unevenly distributed temper.

Hardness: 2.

Surface Finish/Decoration:

Exterior: Exterior surface colors include gray (10YR 5/1), dark gray (N 4/0), very dark gray (N 3/0), brown (10YR 5/3) and sooted black (N 2/0). Vertical cord-marks are extremely regular and even with no overlap or criss-cross. Obliteration is generally to a point where twist and play are undetermined. Individual grooves are 0.5-2.0 mm apart. Wiping striations are not mentioned. Temper can be visible on the surface.

Interior: Interior colors vary. Black (N 2/0), very dark gray (N 3/0), dark gray (N 4/0), to a light-brownish gray (10YR 6/2) were all noted. The surface is grainy and uneven due to anvil indentation. Temper is visible on the surface. Wiping striations are sometimes present.

Form: The one rim appears to represent a jar.

Rim: Direct and slightly inverted with flattened slightly round lip that is beveled to the interior. Lip is undecorated.

Wall thickness: 3.8-10 mm, average 7-7.5 mm.
Rim thickness: 8 mm.
Lip thickness: 8 mm.

Comments: Cord-marked Category 2 is unique in its careful and even cord-marking. Otherwise it is similar and within the range of variation for Cord-marked Category 1 (Van Ness et al. 1990:265).

1997 Ceramic Analysis

Number of specimens:
5PE623.4a = 2
5PE1571.6a = 5 (two vessels)
Total = 7

Construction: Undetermined.

Thinning: Paddle and anvil (based on slight indentations on interior of larger ceramics).

Firing: Partially to completely oxidized.

Paste:

Color: One of the ceramics exhibits red oxidation next to the interior surface, and one is completely oxidized (2.5YR 5/8-6/8). The remainder of colors are brown (10YR 4/3) to a dark-grayish brown (10YR 3/2).

Temper: Subangular to rounded particles of quartz. Light to moderate amounts of residual mica. The percentage of temper varies between 15-30%. Particle size varies from fine sand (0.2 mm) to very coarse sand (2 mm).

Texture: Friable to compact.

Hardness: 2.

Surface Finish/Decoration:

Exterior: Exterior colors include brown (10YR 5/3 and 4/3) and dark gray (10YR 4/1). Cord-markings range from visible to nearly completely obliterated. Individual grooves are 1.5-2.1 mm apart. Temper is visible on the surface. Wiping striations are not apparent.

Interior: Interior colors include brown (10YR 4/3), dark gray (10YR 4/1), and oxidized red (2.5YR 5/8). The surface is grainy to tactiley smooth. Temper is visible on the surface.

Form: Undetermined.

Rim: No rims were recovered.

Dimensions:

Wall Thickness: 5.8-8.5 mm, average 7.6 mm.

Comments: Two main criteria were used to classify these ceramics as Cord-marked Category 2: the overall thickness, and the moderate amount of residual mica. These ceramics possess characteristics of Cord-marked Category 1, but the aforementioned criteria indicate that they belong better within Cord-marked Category 2.

Cord-Marked Category 3:

Ceramics in this category are brown to reddish-brown to gray, with minimally smoothed to obliterated cord-marks, medium to very coarse temper, and medium to thick walls (Zier et al. 1996:141).

Number of Specimens:

22 body ceramics

From sites: 5PE8, 5PE56, 5PE868, 5EP1381, 5EP1696

Construction: Undetermined. Either no laminations are visible or laminations are visible parallel to the surface.

Thinning: Paddle and anvil (based on some uneven interior surfaces) or undetermined.

Firing Method: Variable. Incompletely oxidized or completely smudged.

Paste:

Color: Generally gray (10YR 5/1), dark gray (N 4/0), brown (7.5YR 5/4), and black (10YR 2/1). Exterior rinds, when present, vary in color from reddish-brown (5YR 5/3-5/4), light brown (5YR 6/3), reddish-brown (2.5YR 4/4) to reddish-yellow (7.5YR 6/6).

Temper: Temper particles vary from angular to rounded and are primarily quartz with minor amounts of feldspar. A few ceramics contain varying amounts of residual mica. The amount of temper varies from 15-50%. Temper particles vary in size from fine sand (0.125 mm) to granule gravel (2-4 mm) and average coarse sand (0.5-1 mm) to very coarse sand (1-2 mm).

Texture: Variable. Paste texture can be dense, compact, or friable.

Hardness: 2 to 3.

Surface Finish/Decorations:

Exterior: Exterior surface colors vary. They are brown (10YR 5/3), reddish-brown (5YR 5/3-5/4, 2.5YR 4/4), light reddish-brown (5YR 6/3), reddish-yellow (7.5YR 6/6), and very dark gray (10YR 3/1). In general cord-marks are unevenly applied and at various angles, occasionally criss-crossing. The amount of obliteration varies from slightly to moderately obliterated. Wiping striations are generally visible. Temper is sometimes visible on the surface. Individual grooves are generally less than 2 mm apart but vary between 0.6 mm and 2.5 mm apart.

Interior: Interior colors consist of brown (7.5YR 5/2-5/4), reddish-brown (5YR 5/3, 2.5YR 4/4), dark brown (7.5YR 4/2), yellowish-red (5YR 5/6), weak-red (2.5YR 5/4), gray (10YR 5/1), very dark gray (10YR 3/1), and pink (7.5YR 7/4). The interior surface is grainy to tactilely smooth. Irregular surfaces, on some of the ceramics, are believed to be anvil impressions. The interior may or may not exhibit wiping striations.

Form: Undetermined. No rims.

Dimensions:

Wall thickness: 5.1-11.9 mm, average 7.3 mm.

Comments: Surface color, paste, texture, and general cord-mark patterning are very similar within this category, as described by previous research by Centennial Archaeology. The one exception is a ceramic identified in Van Ness et al. (1990:267) that exhibited a heavily micaceous paste. Cord-marked Category 3 ceramics are affiliated with the Middle Ceramic period at the FCMR.

1997 Ceramic Analysis

Number of Specimens:

5PE904.50a = 2 (same vessel)

Construction: Undetermined.

Thinning: Paddle and anvil (based on interior indentations).

Firing Method: Partially reduced.

Paste:

Color: Carbon streaking is observed next to interior surface and is gray (10YR 5/1) to a very dark gray (10YR 3/1). The remainder of the paste is grayish brown (10YR 5/2).

Temper: Predominantly subangular quartz particles. Temper constitutes approximately 20% of the paste. Residual mica in the clay of one ceramic is very sparse and

nearly microscopic. Particle size varies from medium sand (0.4 mm) to pebble (4.5 mm), with an average between coarse sand (0.5-1 mm) and very coarse sand (1-2 mm).

Texture: Friable.

Hardness: 2.

Surface Finish/Decoration:

Exterior: Exterior color is a grayish brown (10YR 5/2) to a dark grayish-brown (10YR 4/2). Cord-marking is only slightly obliterated and is quite visible. Criss-crossing cord-markings are present on both ceramics. Wiping striations are faint on one of the ceramics which has slight ridge polishing. Individual grooves are 1.5-2.5 mm wide.

Interior: the interior is a light brown (10YR 6/2) with slight anvil indentations. Wiping striations vary from obvious to very faint.

Form: Undetermined, no rims.

Dimensions:

Wall thickness: 5-9.6 mm, average 7.4 mm

Comments: These ceramics were placed within Cord-marked Category 3 based on the overall thickness, cord-markings, and general absence of residual mica in the temper.

Plain Ware

Three categories of Plain wares were originally defined in the ceramic assemblage at the Avery Ranch site (Zier et al. 1988). Plain Category 1 and 2 consist of single rims. Since that time only Plain Category 3 ceramics have been identified.

Plain Category 3

These ceramics are brown to yellowish-brown, plain-surfaced, with walls of medium thickness, and coarse to very coarse temper (Zier et al. 1996:143).

Number of Specimens:

70 body ceramics

1 rim

Total = 71

From Sites: 5PE56; 5PE868; 5PE905; 5PE915; 5EP1080; 5EP1192; 5EP1671

Construction: Undetermined. Laminations parallel to the surface are present, but at least one ceramic from the Avery Ranch site has oblique laminations suggesting coiling.

Thinning: Paddle and anvil, or undetermined.

Firing Method: Variable. Incompletely or fully oxidized to surface smudged to completely smudged.

Paste:

Color: Generally dark-color paste. Noted colors include light brown (7.5YR 6/4), pale brown (10YR 6/3), light reddish-brown (5YR 6/3), grayish-brown (10YR 5/2), light gray (N7/0), pinkish-gray (7.5YR 7/2), dark gray (5YR 4/1, N4/0), very dark gray (N3/0), black (N2/0, 10YR 2/1), and yellowish-red (5YR 5/6). Several of the ceramics have rinds next to the exterior and are a yellow-brown (10YR 6/4) to a yellowish-red (5YR 4/6). A few ceramics also have a dark-gray (N4/0) rind next to the interior.

Temper: Temper particles are angular to rounded. Quartz is the dominant temper with lesser amounts of feldspar, hornblende, and organics. Residual amount of mica vary from small to moderate. The percentage is reported as ranging from 10-60%. Temper particles vary in size from very fine sand (0.0276-0.125 mm) to pebble (+4 mm), but generally temper size averages in the range of coarse sand (0.5-1 mm) to very coarse sand (1-2 mm).

Texture: Dense and friable.

Hardness: 2-2.5.

Surface Finish/Decoration:

Exterior: Exterior colors vary but are generally brown to gray. Colors include brown (10YR 5/3, 7.5YR 5/2), pale brown (10YR 6/3), yellow brown (10YR 5/4), light brown (7.5YR 6/4), light yellowish-brown (10YR 6/4), grayish-brown (10YR 5/2), gray (10YR 5/1), dark gray (N4/0), very dark gray (N3/0), black (N2/0), and yellowish-red (5YR 5/6). The exterior surface has no visible indication of cord-marking. The surface is generally even and grainy with protruding temper, but the surface can be rough and uneven. Polishing and wiping striations are present on some ceramics.

Interior: Interior colors vary but are generally brown or gray. Colors include brown (7.5YR 5/2), light brown (7.5YR 6/4), reddish-brown (5YR 5/3), dark brown (7.5YR 5/2), dark grayish-brown (10YR 4/2), gray (10YR 5/1), pinkish-gray (7.5YR 6/2 - 7/2), dark gray (N4/0), very dark gray (N3/0), and black (N2/0). Interior surfaces are tactiley smooth to grainy. Wiping striations are visible on some of the ceramics.

Form: Undetermined, only one small rim is noted.

Rim: The single rim is very small but appears to be a vertical, direct rim that tapers to the exterior. The interior is slightly concave and irregular.

Dimensions:

Wall thickness: 3.5-14.3 mm, average 5.8 mm

Comments: Over 60 % of the analyzed ceramics in this category are from the Avery Ranch site. Plain ware ceramics may represent a distinct ware, but may also be part of a cord-marked vessel exhibiting no cord-marks. Plain Category 3 ceramics may be affiliated with Early and Middle Ceramic periods, but finer chronological differentiation is not possible at this time from the sample at Fort Carson (Zier et al. 1996:144).

1997 Ceramic Analysis

Number of Specimens:

5EP56.19a = 2 (probable same vessel).

Construction: Undetermined.

Thinning: Paddle and anvil (based on slight indentations on interior of the larger ceramic).

Firing Method: Completely smudged to partial smudged on interior.

Paste:

Color: Paste color is brown (10YR 5/3) with very dark gray smudging (2.5YR 3/1)..

Temper: Subangular quartz and feldspar particles with small a amount of residual mica. Temper constitutes 20-30% of the paste. Particle size ranges from very fine sand (0.1 mm) to very coarse sand (1.5 mm). Average particle size is coarse sand (0.5-1 mm).

Texture: Friable.

Hardness: 2.

Surface Finish/Decoration:

Exterior: Exterior is yellow-brown (10YR 5/4). The surface is grainy with slightly protruding temper. Faint wiping striations are visible.

Interior: Interior color is black (2.5YR 2.5/1) or brown (10YR 4/3). The surface is tactilely smooth to grainy.

Form: Undetermined, no rim.

Dimension:

Wall thickness: 6.3-8.3 mm, average 7.3 mm.

Comments: The primary reason for placing these ceramics within Plain Category 3 is the surface treatment. Other characteristics include thickness, color, and the presence of small amounts of residual mica.

Unidentified Ceramics

Two ceramics could not be confidently placed within a category. One ceramic from 5PE649 was too small, and another ceramic from 5EP1345 was too fragmentary. The following is a description of the characteristics that could be discerned.

Number of Specimens:

5PE649.13a = 1 body ceramic

Firing: Completely smudged.

Paste:

Color: black (2.5YR 2.5/1).

Temper: Quartz particles noted, no residual mica.

Surface Finish/Decoration:

Interior: Gray (10YR 5/1). No temper at surface which is tactiley smooth.

Exterior: Exterior surface is exfoliated.

Comments: This ceramic is 10.1 mm long. Ceramics previously identified at this site include Type II-Subtype II-A Cord-marked and Type IV Plain wares (Zier and Kalasz 1985:133-136). A single uncalibrated radiocarbon age (Beta-11899 560±70 B.P.) from the site places it at the later part of the Middle Ceramic period (Zier et al. 1997).

Number of Specimens:

5PE1345.43a = 1 body ceramic

Firing: Incompletely smudged.

Paste:

Color: dark-grayish brown (10YR 4/2).

Temper: small quartz and feldspar particles.

Surface Finish/Decoration:

Interior: Dark gray (10YR 4/1). Temper is visible on the surface. Surface is grainy with no evidence of wiping striations. Interior surface is partially exfoliated.

Exterior: Exterior surface is exfoliated.

Comments: This is the only ceramic collected from this site.

Conclusions

Analysis of the ceramics collected during the 1997 reevaluation of selected sites at Fort Carson followed the classification system devised for the Avery Ranch site (Zier et al. 1988). This site dates to the Middle Ceramic period, and it is suggested that it comprises one primary occupation in the A.D. 1200s (Zier et al. 1988:257). All subsequent ceramic analyses from Fort Carson, including the current report, have used this system.

There is validity to classifying ceramics from Fort Carson as wares as opposed to establishing particular types. The general paucity of ceramics from Fort Carson and the inherent variability within the sample preclude further discrimination. The use of the broader category of wares simply provides a means of classifying ceramics through general descriptive characteristics. Surface finish is the primary attribute although other characteristics are included in the ware descriptions.

The variability in ceramics recovered during the 1997 field season made classifying the ceramics (particularly the cord-marked wares) by categories, within wares, difficult for two primary reasons. Firstly, this system used and modified by Centennial Archaeology, Inc. over the last ten years enabled them to attain a familiarity with their system. Secondly, although the system is descriptive, it is subjective. For these reasons, a combination of all past ceramic analyses was undertaken in this report. This provided a means of understanding the system as well as identifying the variability among samples. As an example: a characteristic once used to describe cord-marked ceramics was cord depth (e.g., Campbell 1969; Ireland 1968; Watts 1975; Zier and Kalasz 1985). This criterion was discarded by Zier during the ceramic classification from the Avery Ranch site because as Zier et al. (1988:166) point out, "variation on a single vessel may account for differences in cord-mark depth".

It is this kind of variation within a single vessel that precipitated concerns over other characteristics used to define categories. Cord-marked Category 1, as generally described, has walls of thin to medium thickness. The thickness of an individual ceramic can vary with its position; for example, a ceramic from near the base is generally thicker than one from near the neck. Therefore, if the main category of criterion is thickness, ceramics from the base could be classified differently than other ceramics from the same vessel. Another example is the degree of cord-mark obliteration, which often varies through the process of finishing. Characteristics such as color and firing method are also prone to variability within a single vessel.

Butler (1988:454-455) demonstrates some problems with the use of ceramic distinctions in which he describes a single Woodland vessel found southeast of Denver that exhibited two "styles" of cord-markings. These two "styles", broad shallow cord-markings and narrow, deep cord-markings, had been used by others (Farmer et al. 1982:47) as temporal indicators. This vessel possessed portions of the rim which were incurvate, straight, slightly excravate, and a lip with flat and rounded characteristics. It is not suggested here that ceramic vessels from Fort Carson show this degree of variability, but the point is that classification on vessel fragments, rather than the whole vessel, may lend itself to erroneous classification.

Cord-marked and Plain Ware ceramics found at Fort Carson are assigned to either the Early or Middle Ceramic periods. The relationship to these periods is based on limited radiocarbon dates from subsurface contexts, and through associated projectile point typologies.

Faunal Analysis

Nine pieces of faunal material were collected during the 1997 reevaluation. Due to the fragmentary condition of the remains, species identification was not possible. The largest specimen was collected from the surface at 5PE1584 (Figure II.8). This antler fragment is from a large unidentified mammal. It may have been culturally modified, but damage from porcupine or other similar-sized animal covers much of the surface.

The remainder of the faunal materials was recovered from shovel tests within two shelters (5PE326 and 5PE1610). The epiphysis of a mammal long-bone was collected from 5PE1610; however, due to the small size it is unidentifiable. Seven specimens were collected from a shovel test at 5PE326. These bone fragments represent three unidentifiable long-bones and four rodent bones. One of the rodent bones is an incisor. The remaining are too fragmentary for more detailed descriptions.

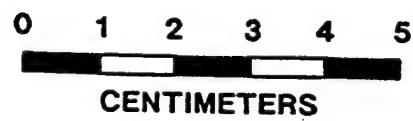
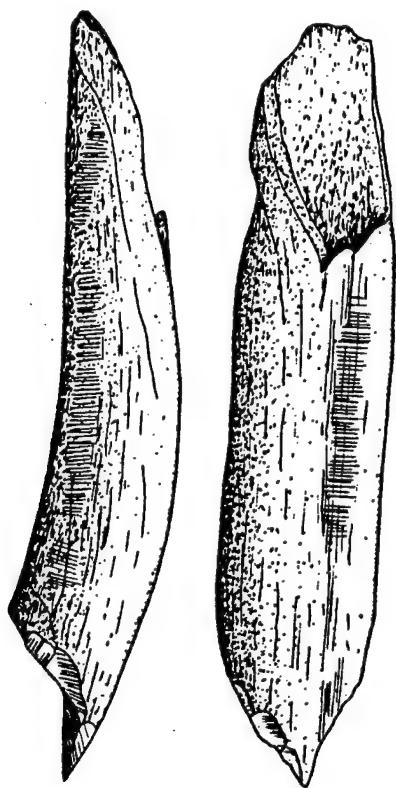


Figure II.8 Possible bone tool (SPE1584.2a).

References Cited

Ahler, Steve

1997 *Field Analysis System for Surface Lithic Artifacts Encountered in the Black Hills Survey Project, Pinon Canyon Maneuver Site, Colorado*. Report submitted to the Department of Sociology and Anthropology, New Mexico State University, Las Cruces. PaleoCultural Research Group, Flagstaff, AZ.

Alexander, R., J. Hartley, and T. Babcock

1982 *A Settlement Survey of the Fort Carson Military Reservation*, 3 vols., Ms. on file, Grand River Consultants, Grand Junction, CO.

Bell, Robert E.

1958 Guide to the Identification of Certain American Projectile Points. *Special Bulletin*, No. 1. Oklahoma Anthropological Society, Oklahoma City.

Butler, W. B.

1988 The Woodland Period in Northeastern Colorado. *Plains Anthropologist* 22(122):449-465.

Campbell, R. G.

1969 *Prehistoric Panhandle Culture on the Chaquagua Plateau, Southeastern Colorado*. Ph.D. dissertation, University of Colorado.

Charles, M., P. Duke, and R. Nathan

1997a *A Cultural Resource Inventory of Portions of Booth Mountain, Fort Carson Military Reservation, Pueblo County, Colorado*. Ms. on file, Midwest Archeological Center, Lincoln, Nebraska.

Charles, M., P. Duke, R. Nathan, S. Larmore, and N. Salazar

1997b *Results of a Cultural Resource Inventory of Portions of Fort Carson Military Reservation and Test Excavation of Site 5EP2524, El Paso County, Colorado, 1996*. Draft Ms. submitted to Midwest Archeological Center, Lincoln, Nebraska.

Dean, J. C.

1992 *Guidelines to Required Procedures for Archaeological Field and Laboratory Work at Piñon Canyon Maneuver Site Las Animas County, Colorado*. Ms. submitted to the U.S. Army by Department of Anthropology, University of North Dakota.

Eddy, F. W. (editor)

1982 *A Cultural Resources Inventory of the John Martin Reservoir, Colorado*. Prepared for U.S. Army Corps of Engineers, Albuquerque District, Albuquerque, New Mexico.

Farmer, T. R., F. W. Eddy, and R. E. Oberlin

1982 Prehistoric Research Design. In *The Cultural Resources Inventory of the John Martin Dam and Reservoir, Bent County, Colorado*, by F. W. Eddy et al., pp. 36-90.

Fulgham, T. and J. Anderson

1984 *Proposed Chronological Framework for the Fort Carson-Piñon Canyon Area*. Contribution No. 2. Phase I of the Fort Carson-Piñon Canyon Project. Ms. submitted to the National Park Service, Rocky Mountain Regional Office, Denver.

Gunnerson, J. H.

1987 *Archaeology of the High Plains*. Bureau of Land Management, Denver, CO.

Hagar, I. K.

1976 5CR1-Draper Cave Excavation and Research Report. *Southwestern Lore* 42(3):1-13.

Hartley, J. D., C. A. Rolen, T. F. Babcock, and R. K. Alexander

1983 *A Settlement Survey of the Fort Carson Military Reservation. Volume II: 1982 site investigations*. Ms. submitted to the National Park Service, Rocky Mountain Regional Office, Denver.

Hummer, A. G.

1989 Prehistoric Ceramics. In *Temporal Assessment of Diagnostic Materials from the Piñon Canyon Maneuver Site: Towards the Development of a Cultural Chronology for Southeastern Colorado*, edited by C. Lintz and J. Anderson. *Memoirs of the Colorado Archaeological Society* No. 4.

Ireland, S. K.

1968 *Five Apishapa Focus Sites in the Arkansas Valley, Colorado*. Master's thesis, University of Denver.

Irwin-Williams, C. and H. Irwin

1966 Excavations at Magic Mountain: a Diachronic Study of Plains Southwest Relations. *Denver Museum of Natural History Proceedings* 12.

Jepson, D. A., C. J. Zier, S. M. Kalasz, and A. M. Barnes
1992 *Archaeological Survey of High Priority Parcels and Other Miscellaneous Areas on the Fort Carson Military Reservation, El Paso, Pueblo, and Fremont Counties, Colorado*. Ms. submitted to the National Park Service, Rocky Mountain Regional Office, Denver.

Kalasz, S., D. Jepson, C. Zier, M. Van Ness
1993 *Test Excavations of Seven Prehistoric Sites on the Fort Carson Military Reservation, El Paso and Pueblo Counties, Colorado*. Ms. submitted to the National Park Service Rocky Mountain Regional Office, Denver.

Lintz, C. and J. L. Anderson (eds)
1989 Temporal Assessment of Diagnostic Materials from the Piñon Canyon Maneuver Site. *Memoirs of the Colorado Archaeological Society* 4.

Munsell Soil Color Charts
1975 Munsell Color, Baltimore, Maryland.

Peebles, A. H.
1985 Prehistoric Ceramics. In *A Chronological Framework of the Fort Carson Piñon Canyon Maneuver Site, Las Animas County, Colorado*, edited by C. Lintz. *U. S. Army Fort Carson Piñon Canyon Cultural Resources Project, Contribution No. 2*. Center for Archaeological Research, University of Denver, Denver, Colorado.

Perino, Gregory
1968 Guide to the Identification of Certain American Indian Projectile Points. *Special Bulletin* No. 3 of the Oklahoma Anthropological Society.
1971 Guide to the Identification of Certain American Indian Projectile Points. *Special Bulletin* No. 4 of the Oklahoma Anthropological Society.

Rice, P. M.
1987 *Pottery Analysis: A Sourcebook*. University of Chicago Press, Chicago, Illinois.

Sanders P. H.
1990 Ceramic Analysis. In, *An Introduction to the Archeology of Piñon Canyon, Southeastern Colorado*, edited by W. Andrefsky, Jr. Ms. submitted to the National Park Service - Rocky Mountain Regional Office, Denver.

Shepard, A. O.

1980 *Ceramics for the Archaeologist*. Braun-Brunfield, Ann Arbor. Reprint, 1956, Ceramic Institute of Washington publication, No. 609. Washington, D.C.

Van Ness, M. A., S. M. Kalasz, C. J. Zier, D. A. Jepson, M. S. Toll, R. F. Madole, and R. F. Carrillo

1990 *Archaeological Survey and Test Excavation in the Turkey Canyon Area, Fort Carson Military Reservation, Pueblo and El Paso Counties, Colorado*. Ms.. submitted to the National Park Service, Rocky Mountain Regional Office, Denver.

Watts, H. K.

1971 *The Archaeology of the Avery Ranch Site on Turkey Creek, southeastern Colorado*. Master's thesis, University of Denver.

1975 The Avery Ranch site. *Southwestern Lore* 41:15-27.

Wood, C. E. and G. A. Bair

1980 *Trinidad Lake Cultural Resources Study, Part II: The Prehistoric Occupation of the Upper Purgatoire River Valley, Southeastern Colorado*. Ms. on file, Interagency Archaeological Services, Denver, CO.

Wood, W. R.

1971 Pottery Sites Near Limon, Colorado. *Southwestern Lore* 37(3):53-85.

Zier, C. J. (editor)

1989 *Archeological Excavation of Recon John Shelter (5PE648) on the Fort Carson Military Reservation, Pueblo County, Colorado*. Ms.. submitted to the National Park Service, Rocky Mountain Regional Office, Denver.

Zier, C. J. and S. M. Kalasz

1985 *Archaeological Survey and Test Excavations in the Multi-Purpose Range Complex Area, Fort Carson Military Reservation, Colorado*. Ms. submitted to the National Park Service, Rocky Mountain Regional Office, Denver.

Zier, C. J., S. M. Kalasz, D. A. Jepson, S. A. Brown, M. W. Painter, and K. Puseman

1996 *Archaeological Survey, Site Documentation, and Test Excavations Conducted During the 1991 and 1993 Field Seasons on the Fort Carson Military Reservation, El Paso, Pueblo, and Fremont Counties, CO*. Ms.. submitted to the National Park Service, Rocky Mountain Regional Office, Denver.

Zier, C. J., S. M. Kalasz, A. H. Peebles, M. A. Van Ness, and E. Anderson
1988 *Archaeological excavation of the Avery Ranch Site (5PE56) on the Fort Carson Military Reservation, Pueblo County, Colorado.* Ms. submitted to the National Park Service, Rocky Mountain Regional Office, Denver.

Zier, C. J., M. W. Painter, K. P. Schweigert
1997 *National Register of Historic Places Multiple Property Documentation.* Ms. submitted to the National Park Service, Denver.

APPENDIX III
(omitted due to sensitive site locational information)